SHOUT
SHARE
IT

506.593 4/6
506.5943
29118
274561
NOV 26 1926
SMITHSONIAN INSTITUTION NATIONAL MUSEUM

First part for the Year
1919.

Price to non-members
$2.50

STRAITS BRANCH

ROYAL ASIATIC SOCIETY.

[No. 81]

JOURNAL

MARCH, 1920.

Sold at the Society's Rooms, Raffles Museum, Singapore,
and by
MESSRS. WILLIAM WESLEY & SON
82, ESSEX STREET, STRAND,
LONDON. W. C.

PRINTED AT THE METHODIST PUBLISHING HOUSE, SINGAPORE.

[No. 81]

JOURNAL
of the
Straits Branch
of the
Royal Asiatic Society

MARCH 1920.

SINGAPORE:
PRINTED AT THE METHODIST PUBLISHING HOUSE,
1920.

CONTENTS.

PAGE

Notes on Dipterocarps No. 5 by I. H. Burkill 1

The Early Muhammadan Missionaries by R. O. Winstedt .. 5

Sidi, Siamang, Adunada by R. O. Winstedt 7

Puaka by Ivor H. N. Evans 11

Obituary—Mr. Abraham Hale—by R. O. Winstedt .. 13

Hikayat Abu Nawas by R. O. Winstedt 15

The Empire of the Maharaja, King of the Mountains and Lord of the Isles by C. O. Blagden 23

History of Kedah by R. O. Winstedt 29

Taju's-Salatin by R. O. Winstedt 37

The Genealogy of Malacca's Kings from a copy of the Bustanu's-Salatin by R. O. Winstedt 39

Notes on Dipterocarps No. 4 by I. H. Burkill 49

On a Collection of Birds from N. E. Sumatra by H. C. Robinson and C. Boden Kloss 79

NOTES ON DIPTEROCARPS.

No. 5. The Embryo and Seedling of Balanocarpus maximus, King.

By I. H. Burkill.

By the kindness of Dr. F. W. Foxworthy, I have been able to examine seedlings of *Balanocarpus maximus, King.* He was so good as to get the fruits for me in the Bikam forest reserve, Lower Perak, on February 1st, 1919, from an old tree which, alone among the trees there, was bearing. The seedlings were raised in the Botanic Gardens, Singapore.

In the germination of *Balanocarpus maximus* the fruit-wall splits into three equal parts, one of which carries the placenta attached to it medially. The expanding cotyledons force the segments apart, and immediately increase their gaping if the wall be removed. The equality of these three segments of the fruit-wall suggests *Dryobalanops.*

The radicle may essert itself from the fruit through the crack which is opposite the placenta: in figure 1 it is shewn emerging from it.

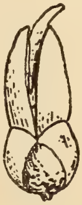


Figure 1. A germinating fruit of *Balanocarpus maximus,* ½ nat. size.

The embryo, removed from the fruit-wall and seed-coats, is drawn in figures 2 and 3. It is shown in them how the cotyledons are placed so that the outer occupies the apex of the ovary-cavity, and the placentar the base. If these two figures be compared with figures of other species of the Dipterocarpaceae, it will be realised that the condition is an extreme one,—a specialisation not attained in any other of the species so far brought under study: and the thought occurs that if, the parental stock of the order possessed an embryo with equal and parallel cotyledons, then this species is most remote from the stock, far more remote than either *Balanocarpus penangianus,* King, or *Balanocarpus Curtisii,* King, which have been illustrated on pages——and——of this Journal, 1919, No. 81.

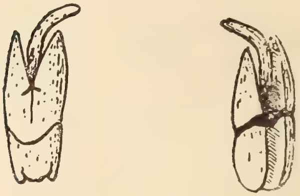


Figure 2. The embryo of *Balanocarpus maximus* seen from the outer side; and figure 3 from the placentar side, ½ nat. size.

The surface of the cotyledons is very faintly lined by pressing upon obscure ridges on the inner surface of the ovary wall. The cotyledons are reddish: they contain starch with some oil.

When the cotyledons have expanded, they are as in figures 4 and 5. The outer cotyledon now distinctly suggests the outer cotyledon of *Anisoptera costata,* Korth., (see in this Journal, 1917, p. 44); but the placentar cotyledon is quite different.

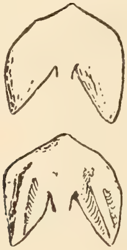


Figure 4. The outer cotyledon of Balanocarpus maximus from outside (above) and from inside (below), ½ nat. size.

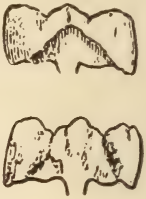


Figure 5. The Placentar cotyledon of Balanocarpus maximus from the side towards the outer cotyledon (above) and from the other side (below).

The seedling produces two pairs of leaves above the cotyledons, which almost make a whorl. After that alternate leaves are produced.

The fruit of Balanocarpus maximus is not wind distributed having no wings; but it floats, though the germinating embryo sinks. It may be that the fruits gets distributed by being washed short distances along the ground when rain is heavy.

The Early Muhammadan Missionaries.

By R. O. Winstedt.

Since I wrote my paper on the "Advent of Muhammadanism in the Malay Peninsula and Archipelago" in *Journal 77,* I have come across a lecture by that greatest of authorities on things Muhammadan, Dr. Snouck Hurgronje, entitled *Arabie en Oost-Indie* (Leyden). From this lecture it is quite clear that while a few stray Arabs visited the Malay world ('Merveilles de l'Inde,' Leyden, 1883—86, pages 255-264), the bulk of Muhammadan missionaries came from India, and were natives of Gujerat and Malabar.

The points may be briefly summarized:—I add local corroborative evidence.

(1) The 3 Pasai grave-stones of 1407, 1408, and 1428 A.D. are of Cambay workmanship (J. P. Moquette's paper in *Tijd. Bat. Gen.* LIX, 1912, pages 208 and 536). So is the Grisek tomb. And two points unknown to Dr. Hurgronje: the Bruas tomb, in Perak, like the Pasai and Grisek tombs is of Indian type; and the Pengkalan Kempas tomb of 1467 A.D. has an inscription in some undeciphered Indian alphabet as well as an inscription in Malay:—here I must correct a suggestion in my previous paper; geology shows that the 'Sword' is of local stone.

(2) The 1407 Pasai tomb is that of Abdullah ibn Muhammad ibn Abdu'l-Kadir ibn Abdu'l-Aziz ibn al-Mansur Abu Ja'far al-Abbasi al-Muntasir. Abdullah was thus of the house of Abbas, which provided Baghdad with its Khalifs from the time of the Prophet till it was destroyed by the Turks in 1258 and the last of the Abbaside Khalifs, al-Musta'sim, was killed. Al-Musta'sim had succeeded in the Khalifate al-Muntasir, who is mentioned on this tomb: and the father of Abdullah whose tomb it is was closely related to him. Now Muhammad, the father of Abdullah, emigrated from Baghdad to India and lived in Delhi; and it must have been from Delhi that his son, the Pasai saint, went to Sumatra. So, too, probably the missionaries to Java and Bruas and the saint buried at Pengkalan Kempas came from India.

(3) The list of missionaries given in the *Bustanu's-Salatin* (Neimann's *Ht. Acheh*) contains mostly Indians, with some Syrians and Egyptians.

(4) Evidently the Arabs and Malays knew little of one another. Between 1600-1650 A.D. the Rajas of Banten and Mataram sent envoys to the Sharif of Mecca asking him to bestow on them Sultanates, although for centuries then Mecca had been under the Usmanli Sultans of Istambul! In 1688 envoys from

the Sharif of Mecca went to India to remind the Great Mogul of tithes due to the Holy City: and they learnt for the first time from Indian friends that Acheen was a Muhammadan kingdom and it was likely they could collect funds in Sumatra! [One may add as another instance of Malay ignorance lines like *Sĕrban Kashmiri warna hijau, Buatan Arab di-nĕgĕri Makkah.*]

(5) The Malay alphabet is not Arabic but Perso-Hindustani.

(6) Many early books were translated from the Persian or oftener from Indian versions of Persian originals. [E.g. the *Ht. Iskandar Dzu'l-Karnain*, the *Bustanu's-Salatin*, the *Taju's-Salatin*, *Ht. Muhammad Hanafiah*, *Ht. Amir Hamza*, the *Ht. Bayan Budiman.* Shaikh Nuru'd-din of Gujerat translated the first two (*Journal* 77, page 174 and *Bustanu's-Salatin* Vol. II, page 26 Singapore 1900); and Brandes and van Ronkel have discussed the origin of the two last. But there is much more to be done in this line of research. There is no evidence of direct Persian influence on the Malays: it came through Indian channels.]

(7) Malay religious literature, discussed in Vol. II of Snouck Hurgronje's 'The Achinese,' is often repulsive to Arab ideas, and is infected with that popular pantheism which India borrowed from Persia. [The charms collected by Skeat in his "Malay Magic" often exhibit this popular pantheism.]

(8) The first Arabs proper came from the Hadthramaut (*vide Journal* 77, page 174 and *Journal* 79, page 49). And the Hadthramaut family of Sayids got the throne of Pontianak in Borneo as well as that of Siak.

Direct Arab influence made itself felt strongly only after the invention of steam-ships had made voyages easy.

SIDI, SIAMANG, ADUNADA

By R. O. Winstedt.

On page 605 of Skeat's "Malay Magic," under LXX occur the lines:—

Bukan-nya aku yang bĕrburu,
Pawang Sidi yang bĕrburu;
Bukan-nya aku yang punya anjing,
Pawang Sakti yang punya anjing:

on page 640, under CXCIX

Maalim Saidi yang punya tawar
Maalim Karimun[1] *yang mĕnawar*

—in a Perak MS. Charm-book, Maalim Karimum is found: on page 607 (LXXIII)

Bukan aku yang bĕrburu,
To patek Sang Sidi yang bĕrburu:

on page 589, XV

Aku-lah yang bĕrnama Dato Mĕntala Guru
Sakti di-rumah:
Sĕdang Sidi nama-nya aku:

on page 607, LXXVI

O sĕrba Saidi
Tuan patek yang punya rusa:

on page 590, XVIII

Bĕrkat Sidi tĕrjali sĕndiri,
Mĕnjadikan sakalian alam.

Now in all the above quotations *Sidi* is taken to be the name of a person; and in some cases is confused with the Arabic *saidi* 'lord,' either by the Malay *pawang* or by his European transcriber. But clearly *sĕrba Saidi* is a very doubtful phrase in the context, if it is to be rendered "all sorts of Lords;" and *bĕrkat Sidi tĕrjali sĕndiri,* if it referred to a *pawang,* would ascribe to him preposterous powers. However in the first of the quotations, *sidi* balances *sakti* "gifted with supernatural attributes:" and that this is apposite and leads us to its true meaning is confirmed by a phrase very common in various forms in Malay charms, e.g. Skeat, page 617 (CIX) and 627 (CXLVII) and 643 (CCVIII):—

---

[1] A *pawang* philologist glibly explains *yang bĕrdiam di-Pulau Karimun* (Skeat p. 581). Is it perhaps the Skt. *Gariman* (= *guru* + *iman*.)

Sidik Guru, sidik-lah aku
Dĕngan bĕrkat, 'La ilaha illa'llah,
Muhammad Rasulu'llah.'

or to quote from MS. charm-books in my possession, which I hope some day to print and edit,—

Sah sidi pĕngajaran guru,
Sidi mustajab ka-pada aku,
Bĕrkat, 'La ilaha, etc.

The first line occurs in three different charms: for the second a variant is *Sah sidi mustajab,* etc. All my charms read *sidi.* Now a common variant of these the concluding lines of a charm is (Skeat, page 627, CXLIII)

Kabul Guru, kabul aku
Dĕngan bĕrkat, 'La ilaha

or page 603, LX

Kabul-lah doa guru aku
Kabul ka-pada aku.

Clearly *sah, mustajab* and *kabul* are synonyms for *sidi.* In a line in the "Ht. Anggun Che Tunggal" page 1, it balances *bĕrkat:*—*Bĕrkat daulat, bĕrsidi sakti.* (I remember asking Pawang Ana if he did not mean *saidi* and his denying it but being unable to explain *sidi.*) *Sidi* must be the Sanskrit *siddhi* (*sidh-ti*) "accomplishment, fulfilment, success, the fruit of ascetic austerities, the acquisition of supernatural power by magic:" with compounds *maha-siddhi* "magic power," and *sadhya-siddhi* "completion, establishing what is to be proved." (Benfey's *Sanskrit-English Dictionary.*) We can then turn from the phrase

Bĕrkat sidi tĕrjali sĕndiri

to the Sanskrit

Navastuno vastusiddhih
'From nothing nothing is derived.'

"Every Tantra," wrote Monier—Williams in his book on Hinduism, "ought, like a Purana, to treat of five subjects,—1. The Creation; 2. The Destruction of the World; 3. The worship of the gods; 4. The attainment of all subjects, especially of 8 superhuman powers (*siddhi*); 5. The four modes of union with the Supreme Spirit. Very few conform even partially to this rule. Most of them are mere hand-books for the use of practisers of witchcraft. . . . Whole Tantras teach nothing but what may be called the science of employing unmeaning sounds for acquiring magical powers over friends and for destroying enemies and rivals. Some give collections of spells suitable for making people enamoured, for destroying sight, for producing and preventing diseases, for injuring crops, for alchemy."

India was the home of Malay magical lore. Before and after the days of Muhammad, India has been until comparatively recent times, the source of nearly all Malay learning, science and art.

SIAMANG.

In a previous paper I drew attention to the fact that *siamang* (Hylobates syndactylus) may be derived from the Sanskrit *siamanga* 'black--bodied,' which by the bye is an epithet descriptive of Budha i.e. the planet Mercury, son of Soma the moon. Now on page 617 (CXI) of Skeat's "Malay Magic" I find the line

Pĕrgi-lah ĕngkau ka-bukit siamang biru

and on page 672 (CCLXXV)

Nior manis, siamang bulan.

Is this last a *pawang's* cryptic equivalent for *gĕlap bulan?*

In Sanskrit *siama* means 'black, a cloud, shade, shadow, night:'

So that the *pawang's* metaphorical use of *siamang* would be an extraordinary coincidence or survival.

ADUNADA.

On page 593 (XXVIII) of Skeat's "Malay Magic" the charm against the Spectre Huntsman mentions a

Hantu bota Si Adunada
Mĕnyandang pĕdang tĕrbongkok-bongkok.

Is *Adunada* perhaps a corruption of the Sanskrit *anunaaa* 'echo'? An echo-spirit would be a not inappropriate follower of the Spectre Huntsman.

PUAKA.

By Ivor H. N. Evans.

In Tregear's "Maori Comparative Dictionary" is to be found a word *poaka,* meaning a pig, a hog, and it is stated that the term, generally supposed to be a corruption of the English word "porker," is genuinely Polynesian.

Poaka is found, in varying forms, in many Polynesian dialects and languages. Thus, according to Tregear, we have Samoan—*pua'a;* Tahitian—*puaa;* Hawaiian—*puaa;* Tongan—*buaka;* Rarotongan—*puaka;* Marquesan—*puaa;* Mangarevan—*puaka.*

Outside Polynesia proper, too, but not outside the bounds of Polynesian linguistic, and other influences, we have such examples as *vuaka* (Fiji); *puaka* (Rotuma).

Now to any one who knows Malay the word *puaka* (or *puwaka*) is, of course quite familiar. It is not at all uncommon to come across places, often where there is some big tree, which are said to be *ber-puaka,* i.e. haunted by a *puaka.* The Malay has however, as far as I have been able to find out, absolutely no idea that *puaka* has anything to do with "pig," a *puaka* being apparently, according to Malay belief, a spirit, either a tree spirit or a *genius loci.*(1)

Among the Dusuns of British North Borneo(2) the *puaka*(3) is said to be a spirit which has the form of a pig. The *puaka* go in companies, hunt human beings, and have the peculiarity—like many spirits—that they cannot cross water with impunity. If they do so, they die, through licking all the flesh from their bones with their sharp tongues.

In Hawaii, besides being commonly used as the ordinary word for pig, *puaka,* either by itself, or in combination with some other word, may mean a spirit of some kind, often a spirit in the form of a pig; thus we find in Tregear's dictionary the statement that "*puaa,*" seems to have been originally the name of any large quadruped, but (was?) afterwards restricted to hogs. The word occurs frequently in old legends and myths as descriptive of monsters,

---

(1) ''The locally presiding earth-demon (*puaka*),——— '' ''Malay Magic,'' p. 144.

Ayer berputar jangan chebok,
Puwaka besar dudok menunggu

don't take your water from an eddy, a mighty demon dwells there to guard it.'' Wilkinson's *Malay Dictionary.*

(2) Those of Piasau in the Tempasuk District.

(3) The word was, by mistake, written *pukou* in a folk-story which I collected in Borneo. I am nearly certain, however, that the spelling *puaka* is correct. For the folk-story *vide J. R. A. I.*, 1913, p. 452.

Jour. Straits Branch R. A. Soc., No. 81, 1920.

etc. Kama-puaa was a goblin, worshipped as a god, half man and half hog. . . . . . . Poo-puaa was one of the gods in a temple; his head resembled a hog. Kane-puaa was the god of husbandry: *He akua kowaa o Kanepuaa*—"a furrow making god was Tane-poaka."

Now the pig, as is well known, played, and plays, an important part in agricultural rites in Europe,(1) and, to gain some idea of this, it is only necessary to glance through that part of "The Golden Bough" which is named "Spirits of the Corn and of the Wild." Furthermore there is a close connection between tree or vegetation spirits, *genii locorum,* and those of agriculture.

To return, however, to the word *puaka,* I have shewn that in Polynesia and in Borneo(2) the word can mean a pig-bodied or pig-faced spirit, and that in Polynesia it can mean pig only.

Now there can be no doubt that the word is of identical origin in Polynesia, in Borneo, and in the Malay Peninsula, seeing that the languages of Polynesia and Indonesia all belong to one group.

The Malays have no idea that *puaka* in any way refers to the pig, but consider a *puaka* to be a tree spirit or a *genius loci.* It seems probable, however, that *puaka* actually did mean pig in Malay at one time, or, if not, a pig-like tree spirit, vegetation spirit, or *genius loci*;(1) but that now-a-days—very likely owing to the introduction of the religion of Mohamed—the connection of pig with *puaka* has been forgotten (suppressed) and there merely remains the belief that the *puaka* is a tree spirit or *genius loci.*

---

(1) Possibly the fact that wild pig often rout up large pieces of ground in search of worms or roots, so that they almost look as if they had been ploughed, may have had something to do with the respect in which the pig is held in connection with agriculture; *vide supra* the epithet "furrow-making." Furthermore the wild pig takes a great interest—an inimical interest—in agriculture. The Sakai tribesmen of some parts of the Malay States believe that the earth spirits, if offended, will appear as wild pigs, and come in droves to devastate the crops. The Dusuns of the Tempasuk District of North Borneo, too, tell how the people (spirits?) from certain villages far away become pigs in order to plunder the ripe padi.

(2) *Puaka* is not the Dusun word for either the domestic or the wild pig.

(1) The *genii locorum* in a jungle-covered country like the Malay Peninsula would probably be those of the jungle, i.e. of trees, especially of those which were large, or in any way remarkable.

Jour. Straits Branch

OBITUARY

Mr. Abraham Hale. (Dec. 7, 1854—April 8, 1919).

Mr. Hale, who retired from the F. M. S. Civil Service in 1911 after twenty-seven years' service, died on April 8th in his sixty-fifth year. He was one of the earliest surviving members of the Society and contributed several notes and papers to early numbers, his principal contribution being on "Folk-lore and the Menangkabau Code in the Negri Sembilan" Journal XXXI. He always lamented with that delightful candour which characterized him, that his literary talent was untrained: but for all that it was a very genuine talent. Had "The Adventures of John Smith in Malaya" been written two centuries ago, its author would have ranked with Defoe. Hale had an extraordinary faculty for vivid detail.

Less than a fortnight before he died, he wrote me a letter full of his usual enthusiasm for Malaya and his abundant interest in life: and enclosing a photograph of himself as a private in the Kent Volunteer 'Fencibles. For me as for many others it was a pleasure to have known him and served under him.

R. O. W.

Hikayat Abu Nawas.

By R. O. Winstedt.

Apparently there are no MSS. of this story in England or Holland. There is a MS. in Raffles' Library, Singapore, in the colophon of which it is stated that the MS. was transcribed at Sungai Kalang, but no date is given: obviously it is not old. Another version has been lithographed in Singapore quite lately, A.H. 1336. The two Singapore texts are identical in subject-matter, and differ little even verbally.

Three MSS. of the *Hikayat* are in the library of the *Bataviasch Genootschap* (*Vide* van Ronkel's *Catalogus* in *Deel* LVII of the *Verhandelingen* of that Society: pp. 125-127). The first two of these MSS., Nos. CXXVII and CXXVIII in the *Catalogus,* give a version different from the Singapore recension. They make Abu Nawas the son not of a Kathi but of a Penghulu. The *mantĕri* is given a name, that of the famous Luqman (*vide* Hughes' "Dictionary of Islam"). On p. 22 of the first MS. there is the story of how Harun a'r-Rashid bade Abu Nawas sew up a broken stone mortar. That MS. is dated 1865 and contains 21 tales. It would appear to be identical with *Tjerita Aboe Nawas* printed by Albrecht and Rusche in Batavia (3rd edition 1894), of which I give an outline below. MS. No. CXXVIII is described as "inferior, indecent and incomplete," in all of which respects perhaps it resembles the Singapore texts. The third MS., No. CXXIX, was collected by von der Wall: like the Singapore versions, it makes Abu Nawas the son of a Kathi and omits mention of Luqman.

Van Ophuijsen has printed four tales, (which I have numbered (9), (3), (6) and (7) in my summary below of the Singapore version), on pages 25-6, 115-121 and 152-164 of his Romanized *Maleisch Leesboek* (Leiden 1912). Ophuijsen does not give the source of his text: slightly better in style and here and there fuller in phrase, it resembles otherwise the Singapore versions very closely both in wording and in matter.

(Here I should like to call the attention of English students to the value of the Readers and *Bloemlezing* edited by so many Dutch scholars as store-houses of fragments selected from unpublished Malay MSS.).

I have printed two tales, numbered (5) and (13) in my summary of the Singapore version, in *Pĕlampas Akal,* (pp. 36-37, and 63-67) a Romanized Malay Reader for Standard III of the Government Malay Schools: Kelly and Walsh, Singapore, 1919. As it is a school-book, I have emended a few difficulties in the text.

So, from the Singapore recension of the *Hikayat Abu Nawas* there will remain only a few unimportant tales (Nos. 1, 2, 4 and 8) fit for publication, that will not be accessible in Romanized Malay.

Snouck Hurgronje's description of the Achinese recension of the *Hikayat* leaves no doubt that it is more or less identical with the Malay version. "This Malay work consists not so much of anecdotes from the life of the Arab poet Abu Nawas as a collection of popular tales respecting an imaginary court-fool who has much in common with the German Eulenspiegel and to whom the name of this poet has been given. Compare also the *Contes Kabyles* of A. Moulieras, Introduction: *les Fourberies de Si Jeh'a,* p. 12 (*Bou Na'as*) and M. Hartmann's *Schwanke und Schnurren,* S. 55 and 61 (*Zeitschrift fur Volkskunde,* 1895")—"The Achinese," vol. II p. 157.

Abu Nawas, (*obiit* A.D. 806-813) one of the greatest Arabian poets was half Persian by birth. His discreditable adventures, quick wit and resource are recorded also in the "Arabian Nights." (*Vide* Abu Nawas, p, 102 "Encyclopaedia of Islam").

My summary gives the pages of the Singapore MS. in Raffles' Library:—

(1) Page 1. A Kathi the father of Abu Nawas, lay dying. He bade his son kiss him. Abu Nawas noticed that one of his father's ears smelt foul, the other sweet. His father related how once he had inclined his ear to one party in a suit but not to the other.

(2) p. 2. Abu Nawas pretends to be mad to avoid succeeding his father as Kathi under Sultan Harun a'r-Rashid.

(3) p. 4. An Egyptian merchant, a sojourner in Baghdad, dreams he has married the new Kathi's daughter, paying a huge dowry. Hearing of the dream the Kathi demands the dowry and seizes the merchant's goods in payment for a marriage existing only in a dream. An old woman advises that Abu Nawas be consulted. Abu Nawas orders his pupils to break into the Kathi's house at night. The Kathi complains to Sultan Harun a'r-Rashid. Abu Nawas declares he dreamt it was done and so he had it done; following the example of the Kathi who had exacted the dowry only dreamt of by the merchant! The Kathi is punished and his goods restored to the Egyptian.

A Malay Mouse-deer story with a similar plot is printed in *Journal* No. 46, 1906, pp. 85-88.

(4) p. 10. Sultan Harun a'r-Rashid gives Abu Nawas two goats. They are each to be fed with the same quantity of the same food for 40 days. At the end of that time one is to be fat and the other lean. Abu Nawas puts a cat in the pen of one of the goats and the cat's restless movements keep the goat lean.

(5) p. 12. Harun a'r-Rashid orders Abu Nawas to find six head of cattle, bearded and gifted with speech. Abu Nawas brings bearded louts who cannot say what is the day of the week!

(6) p. 14. Abu Nawas wants money. He invites Harun a'r-Rashid to accompany him to a Bedouin house to hear wonderful music. He induces the Sultan to sit under a tree, while he goes up to a Bedouin agriculturist and sells him Harun a'r-Rashid as a slave.

(7) p. 21. Harun a'r-Rashid wants to kill Abu Nawas for his treachery. Abu Nawas pretends to be dead, having first instructed his wife to ask the Sultan in the presence of all the mourners to forgive all the deceased's sins towards him in this world and the next. The Sultan does so, whereupon Abu Nawas comes to life.

(8) p. 26. Abu Nawas declines to present himself to court on the plea that he is pregnant; as it appears later, in a metaphorical sense.

(9) p. 30. Harun a'r-Rashid knowing that the mother of Abu Nawas is dead orders him to bring her to court. Promising to divide the reward, 100 dinars, with her, Abu Nawas persuades an old cake-seller to adopt him and brings her. When the Sultan decrees him 100 stripes, Abu Nawas represents that he should get only 50 and the old woman 50, as they had agreed to share alike. The Sultan pardons both.

(10) p. 35. Harun a'r-Rashid, having secretly given a number of divers an egg apiece, calls Abu Nawas and orders them all to dive into a pond: whoever fails to bring up an egg is to be punished. Abu Nawas fails but escapes punishment by protesting that all the others are hens but he a cock!

(11) p. 37. At a *maulud* gathering, the court attendants sprinkle the company with rose-water but Abu Nawas with *ayer sĕni!* Abu Nawas pretends to be ill and when the Sultan

visits him recovers and ascribes his recovery to certain pills. The Sultan insists on trying the pills and Abu Nawas administers three in which he had mixed *tahi!* When the Sultan discovers the trick, Abu Nawas demands hush-money.

(12) p. 41. Abu Nawas, accused of impropriety with a girl in the palace, is put in a tigress' cage but escapes being devoured by an indecent trick.

(13) p. 53. By relating how he had worsted the tigress, Abu Nawas makes the Sultan laugh. The laughter causes an intestinal ulcer, from which the Sultan suffered, to burst.

(14) p. 55. Abu Nawas is captured by Bedouins who would slay and eat him. He offers to find a stout friend to take his place and fetches Harun a'r-Rashid. The Sultan persuades the Bedouins it will be more profitable to let him live and make caps. After six months' captivity he embroiders on a cap a message to his Vizier and is rescued. Abu Nawas saves himself, by pleading that he only wished the Sultan to see the state of his country.

(15 & 16) p. 62. The concluding two connected stories are too indecent even to summarize. Siti Zubaidah, consort of Harun a'r-Rashid, asks to rule for a day in order to punish Abu Nawas, but his Rabelaisian behaviour scares her into her chamber.

The *Tjĕrita Aboe Nawas* (Albrecht and Rusche, Batavia) is in poor Batavian Malay. Of three of the tales (Nos. II, IV and XI) I have given versions in Peninsular Malay in *Tangga Pĕngĕtahuan,* a Jawi Reader for Standard III of the Government Malay Schools (Kelly and Walsh). The following is a summary of the contents of the *Tjĕrita*:—

I. The first section contains substantially tales 1, 2 and 4 of the Singapore recension. Abu Nawas is the son of a *pĕnghulu* and Luqman is mentioned.

II. The tale of sewing the broken mortar. Cf. the tale of the king of Egypt requiring a broken millstone to be sewn up—"The story of Ahikar in Syriac, Arabic, etc.," Conybeare, Harris and Lewis Smith; Cambridge.

III. Tale 9 of the Singapore recension.

IV. Harun a'r-Rashid orders Abu Nawas to tell him the number of the stars of heaven and to determine the centre of the world.

V. Harun a'r-Rashid sends Abu Nawas to visit His Highness' sick mother and says, "I'll slay you whether you report her dead or alive. She dies. Abu Nawas returns and sits in silence before the Sultan. Harun asks, "Is she dead or alive?" Says Abu Nawas, "Your Highness has uttered the words, not I."

The original of this story would seem to be that of the Persian king Khusraw Parwiz and the poet Bahlabad (or Barbad) retold a century later by the Arab poet Khalid bin Fayyad (Browne's "A Literary History of Persia," vol. I, p. 17).

VI. Tales 15 and 16 of the Singapore recension.

VII. A coarse indecent tale of how Siti Zubaidah orders the defiling of the house of Abu Nawas who stipulates that the defilement shall be only the one kind ordered.

This tale occurs in the Arabic *Nafhatu'l-Yaman* ("J. and P., A. S. Bengal," vol. III, No. 7, July 1907 where the editors suggest it is an oriental version of the story of the pound of flesh.)

VIII. A merchant vows to sacrifice a goat with horns 1 *jĕngkal* wide, if his wife bears him an heir. She bears a child, but the merchant cannot find a goat with horns of the requisite width. The priests tell him that no other kind of goat will serve. He presents himself before Harun a'r-Rashid who consults Abu Nawas. Abu Nawas bids the merchant bring the biggest goat he has got together with the new-born infant. The goat horns are found to measure 1 span (*jĕngkal*) of the infant's hand!

IX. A wealthy man offers 10 *dĕrham* to any one who can endure to remain in the chill water of his pond one whole night. A poor old man with the help of Allah endures but the wealthy man refuses to pay, because the poor man's son had lit a fire on the edge of the tank and so, he declares, kept his father warm. Abu Nawas invites the Sultan, the unjust judge who had refused the poor man redress, and the wealthy man to his house where he lights a fire under a tree above which he had hung a pot. Harun points out that he'll never cook his rice because the fire is so far away from the pot. Abu Nawas pleads that the same remark applies to the fire lit on the bank of the pond when the poor man stood in the water. Harun sentences the rich man to pay the poor fellow 100 *dĕrham* and imprisons him and the unjust judge.

X. Abu Nawas is bidden to teach a cow (*sampi*) to recite the Koran. He tries to beat her to death to escape an impossible task.

XI. Abu Nawas undertakes to remove a mosque on his back.

XII. Nakhiebah is an unjust and libertine *mantĕri*. Abu Nawas embroils a young man with him over the sale of a cow; persuades the youth to get admission into the *mantĕri's* house disguised as a girl, and there beat him to death. Nakhiebah is not quite killed. So Abu Nawas disguises the youth as a doctor (*dukun*) and tells him really to kill the *mantĕri* this time on pretence of treating him. The youth again fails. The *mantĕri* tells his wife to pretend he is dead and bury a banana stem in his stead. He will be hidden on the bier. Abu Nawas hires a horseman to scatter the mourners, while the young man really kills the *mantĕri,* who is actually buried.

XIII. Abu Nawas has a poor relation who wants to trade. To get him capital, Abu Nawas sends his wife Maria to the Sultana, Siti Zubaidah, to say that she wants alms to bury her husband. Abu Nawas, who has just died. Meanwhile he himself goes to Sultan Harun and asks for alms to bury his wife! They both get money and start their kinsman in trade. Maria however keeps back 250 of the 350 *dĕrham* given to her.

XIV. The poor relation loses all his money in trade and enters the service of a Jew, with the stipulation that whoever of them gives the other notice shall forfeit a pound of flesh. The poor trader cannot endure the hard work, and forfeits his pound of flesh. Abu Nawas enters the Jew's service to avenge his relative. He works well but continually eats his master's food. The Jew anxious to get rid of him but fearful of forfeiting a pound of flesh determines to kill him. Abu Nawas puts the Jew's wife in his bed. The Jew kills her and has to flee the country, leaving half his property behind. Abu Nawas asks for one nail out of the property and before the Raja and merchants come to the auction of the Jew's property hangs stinking meat on it. They pay him 8000 *perak* in all to remove the meat. He gives the poor relation 1000 *perak* and the man trades and grows rich.

XV. Harun orders Abu Nawas to get a bearded tiger (*machan*). Abu Nawas puts up a trap in his house, and after arranging with his wife, goes to an elder of the mosque and tells him that his wife has quarrelled with him. The elder goes off to talk to the lady and finding her fair draws very near to her. Abu Nawas returns and knocks at the door. His wife puts the elder in the cage to hide. Abu Nawas takes the trap with its human victim before the Sultan and the elder is disgraced for ever.

This forms one incident in the tale of *Musang Bĕrjanggut* (*J. R. A. S., S. B.* No. 52) which is mostly derived from the Sukasaptati (or Sanskrit original of "The Enchanted Parrot" Wortham's translation, Tale XXXIII).

XVI. The story how Muhammad Khali by a filthy trick cured his wife of her guilty passion for a *bilal.*

XVII. Harun a'r-Rashid calls all his advisers except Abu Nawas to choose a name for his son. They select Abdul-Rahman. Abu Nawas annoyed presents himself before the Sultan and declares it is a name fit only for fools. To prove it he goes to the house of a Penghulu Abdul-Rahman, hides money under his mat, pretends to listen to the chirping of birds outside the house and declares the birds are saying there is money under the mat. Abdul-Rahman finds it is so. Abu Nawas repeats the trick for several days. On the seventh day Abu Nawas weeps and says the birds declare that Abdul-Rahman is about to die. To avoid this tragedy, Abdul-

Rahman is persuaded by Abu Nawas to follow his advice, be shrouded and put on a bier: whereupon Abu Nawas takes him before the Sultan as proof that all people of that name are fools.

XVIII. An unsavoury tale of how Abu Nawas gets into disgrace for fouling a stream.

XIX. Harun asks his vizier Ja'far Barmaki (the Barmecide) what the water bubbling in a hookah is saying. He cannot tell. Abu Nawas avers it is asking the news from the burning tobacco.

XX. Harun stipulates that Abu Nawas shall travel neither on the ground, nor in a carriage neither in the sun nor in the shade. Abu Nawas fixes a broken umbrella on a pony's back, puts one foot in a stirrup and ties one to the umbrella and so rides.

XXI. Abu Nawas repays a nasty trick to Harun in kind: tale (11) of the Singapore recension.

XXII. A hump-back has a beautiful wife. A lover impersonates the husband and the wife cannot distinguish between them. Abu Nawas makes a big *gĕndi* with two spouts and bids both the fellows scramble through the spouts. The man who sticks is declared to be the real hump-back and the other is punished.

Two short tales of Abu Nawas, that do not appear in either of the above recensions, are printed in *Pĕnimbau Akal* my Jawi Reader for Standard II of the Government Malay Schools.

In the large (unpublished) version of the *Hikayat Bakhtiar* (Raffles' MS. 63, Library of Royal Asiatic Society, London; *vide* van der Tuuk's "Account" in "Essays relating to Indo-China," Second Series, vol. II) among many other tales occur two of Abu Nawas, which Dr. Brandes in his paper on the *Hikayat Bakhtiar* ("Tijdschrift voor Ind. T. L. & Vk. v. N. I. Deel XXXVIII") summarizes as follows:—

"*Tale 53.* Sleepless, Sultan Harun a'r-Rashid visits a mistress Kamar a'z-zaman. He bids Abu Nawas compose a poem on the incident. It is so lifelike that the Sultan thinks Abu Nawas must have spied on him. But Abu Nawas denies this and gets a reward.

Tale 54. Harun a'r-Rashid visits بدرالتمام a mistress he has neglected. He keeps her standing but she excuses herself from his presence. In vain he awaits her return. He seeks her next day and tells her promises are made to be kept. She replies that one does not do by day what one promises at night. Abu Nawas رقسي and معدي are bidden to write poems on the incident. Again Abu Nawas is accused of having played eaves-dropper, so lifelike is his poem."

The Empire of the Maharaja, King of the Mountains and Lord of the Isles.

By C. O. Blagden.

In the autumn of the year 671 the Chinese Buddhist pilgrim I Tsing[1] sailed from Canton in a Persian ship with the North-East monsoon and in less than twenty days arrived at the country of Fo-she, where he stayed for six months before proceeding to India. Fourteen years later, on his return from India, he stayed there again, this time for four years. All the available evidence points to the conclusion that this Fo-she or Shi-li-fo-she country was Palembang, in Southern Sumatra, and from the 7th century to its conquest by the Javanese of Majapahit about 1377 we get many glimpses of it as a flourishing kingdom of Hindu (and particularly Buddhist) civilization. That much has been common knowledge for a good many years past. Gerini in his *Researches on Ptolemy's Geography of Eastern Asia,* pp. 619-30, has compiled a useful list of dates forming an outline sketch of Palembang history during the period above mentioned, and Wilkinson in *Papers on Malay Subjects: History,* Pt. I, pp. 11-4, has also given a brief account of it (omitting, however, any reference to I Tsing and relying on the very doubtfully identified kingdom of Kandali).

Quite recently, however, the importance of Palembang in relation to the whole course of the local history of the Straits before the 14th century has had fresh light thrown upon it. It is no longer as a single kingdom localized in Southern Sumatra that we must regard it, but as an empire which for several centuries had outstations on both sides of the Straits, by means of which it controlled and took toll of the international trade that passed through them. Viewed in that light, the matter becomes vastly more interesting, for it is linked up with the history of Eastern trade-routes in general and in particular with the sea-route between China and the West. In Ptolemy's time (2nd Century A.D.) trade already went through the Straits, though on occasion it availed itself of various land crossings on the isthmus between Indo-China and the Malay Peninsula, in places where that isthmus narrows and there are convenient gaps in the mountain ridge. No doubt, as navigation progressed, the continuous sea-route through the Straits, in spite of the delays involved by its weak and variable winds, became more and more firmly established as the normal one. And so it remained until Vasco da Gama discovered the new route round the Cape of Good Hope, whereupon for a few centuries the trade was diverted to some extent, only to return again into its old channels by reason of the cutting of the Suez Canal.

---

[1] "I-Tsing translated by J. Takakusu," (1896, Clarendon Press, Oxford).

In I Tsing's time Palembang annexed the Malayu country, probably in Central Sumatra somewhere about Kampar or Siak, with a port at which the pilgrim also stayed a while. A century later, there is evidence that Vieng Sa, an inland place south of the Bay of Bandon in what is now Lower Siam and situated about 9° N. lat., was in some way under the control of the "Mahārāja," for that was the dynastic style of the King of Palembang. A Sanskrit inscription set up at Vieng Sa[1] records the erection in the year 775 of certain Buddhist buildings by order of the King of Srīvijaya. This reflects back a ray of light on the *kadatuan Srīvijaya*, the kingdom of Srīvijaya mentioned in the Kota Kapur (Western Bangka) inscription[2] which is nearly a century older and commemorates an attack on Java. It now seems highly probable that Srīvijaya was not the name of the king who set up that inscription but rather of his kingdom. In the middle of the 9th century begins the series of Arabic writers who make much of the empire of the Mahārāja, which according to them included all the region of the Straits. For the early Arab traders the great emporium was Kalah or Kilah, where there were tin-mines which localize it definitely in the tin-bearing tract of country extending from Southern Tenasserim through the greater part of the Malay Peninsula. Its identification with Kĕdah is at least highly probable, for Kĕdah is the port which a traveller from the West would first reach and call at. Ibn Khordadzbeh, the earliest Arab authority who goes into these matters, says that Kilah was six days' journey from the island of Langkabulus (one of the Nicobars, probably Great Nicobar). It is mentioned about the beginning of the 10th century as a dependency of the Mahārāja, and probably stood in that relation a century or two earlier. It is probably identical with Kie-ch'a (old pronunciation Kada), where I Tsing called on his way to India and whence he sailed in a ship belonging to the king (of Palembang).

But what throws the strongest light on the extent and importance of the empire of Palembang is the record of its relations with the Tamil dynasty of the Cholas in the 11th century. First, in 1005, there is a grant of a village to a Buddhist temple at Negapatam built by two Palembang kings, father and son. This grant is in Sanskrit and Tamil; in the Sanskrit portion the names of the two kings are given and the second one is styled "king of Katāha and king of Srīvishaya." Their identity as kings of Palembang is clinched by two entries in the Chinese annals of the Sung dynasty which also give their names and mention embassies from them in 1003 and 1008 respectively. In the Tamil text Katāha is called Kidāram. It is almost certainly Kĕdah. Some twenty years later the Chola king of that day boasts in his inscriptions of his conquests overseas, resulting in the capture of the king of Kadāram and the taking of a number of places in his empire, including *inter alia* the Nicobars, Lambri (near Achin), Kadāram, Langkasuka (the old site in Southern Kĕdah), and Srīvishaya itself. Again in 1068 another Chola king claims to have captured Kĕdah but restored it to its ruler, and a few years later we find that Palembang has persuaded the Chinese Court that the Mahārāja is the overlord and the Chola his vassal! From this period of conflict ending thus we may perhaps infer that honours were divided, though it does not appear that Palembang retaliated by a genuine strategical offensive in the 11th century, at any rate.

---

[1] 'Inscriptions du Siam et de la Péninsule Malaise,' by M. L. Finot in the "Bulletin de la Commission archéologique de l'Indochine, 1910."

[2] *J. R. A. S., S. B.*, No. 64.

It is not unlikely that the attacks on Ceylon in 1250 and between 1270 and 1275 attributed by the Ceylon chronicles to the "Javaku" emanated from Palembang. Chao Ju Kua, writing about 1225, represents Palembang as having fifteen provinces or dependencies, including Pahang, Trĕngganu, Kĕlantan, Langkasuka, half a dozen more places less easily identified but of which two have been definitely located in Lower Siam, and five others, namely Palembang, Sunda, Kompai, Lambri, and Ceylon, the last named (like some of the others) sending a yearly tribute.

But before the end of the 13th century the Palembang empire seems to have broken up. Even in 1225 it showed signs of internal decay, for the Chinese author just cited, after enumerating Kompai among the dependencies, devotes a separate chapter to it in which he expressly says: "Formerly it was a dependency of San-fo-ts'i, but after a fight it set up a king of its own." Then there was serious pressure from without. Perhaps we may include herein the Javanese expedition of 1275 to "Malayu," though we do not know precisely which part of Sumatra it was aimed at. There was worse trouble in the extreme North of the Peninsula, where the Malay forces were falling back before the growing Siamese kingdom whose capital was then at Sukhodaya, far away to the North, near the Lao country. The Mon chronicles speak of these conflicts at some date not long before 1280, and the Chinese records say that they had been going on for many years before 1295. The upshot was that the northern outstations of Palembang in the Peninsula were included in Lower Siam. About the same time Islam was making its first and as yet peaceful conquests in Northern Sumatra, and little places like Pĕrlak, Pasai, and Samudra set up as independent states and made a bid for a share in the trade of the Straits.

Somewhere about the same period, possibly a little earlier, Singapore must also have become independent and begun to take advantage of its unique position. For plainly the command of the Straits so long exercised by Palembang rested not on nature but on force: it was quite off the direct trade-route. So long as by threats of what we should call piracy it could compel trading ships to come into its ports and there pay toll, it did so, even as late as the early part of the 13th century, as Chao Ju Kua tells us. But already in his time it would seem that about a third of the merchants from China put in at Ling-ya-mön (Straits of Linggi, or I think more probably Singapore) before going on to

Palembang. Probably this Ling-ya-mön, wherever it was, was only a dependency and so Palembang got the tolls anyhow. But when the outstations began to drop away, the old monopoly was gone and the Mahārāja lost his hold on the trade which he had controlled and taxed for some six centuries. For why should traders go out of their way, when the short cut lay by Singapore?

Comparing these somewhat scanty historical facts with the legends handed down by tradition and embodied in Malay literature, one is tempted to see in the mythical expedition of Raja Suran down the Malay Peninsula (*Sĕjarah Mĕlayu*, chapt. I) a vague reflection of the Chola raids of the 11th century, while the tales of friendly correspondence between Malay and Indian kings may well be based on half forgotten memories of a state of things that really existed for several centuries. There is evidence enough in Malay titles, place-names, and many other words, of the strong influence which Indian civilization had on Western Indonesia. Knowing something now of the course of history, even if it is merely in rough outline, one can understand why the *Sĕjarah Mĕlayu* makes the kings of Singapore descend from the royal family of Palembang, the great state which played such a leading part for such a long time; and an epithet in the dynastic style of that family throws light on the myth of the origin of the Singapore house. Both in the Vieng Sa inscription and in the earliest of the Chola records above referred to, the Mahārāja is said to be "of the family of the king of the mountains." This, with all the other evidence, establishes the fact that the same dynasty is referred to in both inscriptions and also accounts for what puzzled Mr. Wilkinson (*op. cit.*, p. 11), namely the legend of the appearance of the three princes on Mount Siguntang Mahameru. That is not a national Malay legend but an echo of the dynastic tradition of the Palembang family which claimed to spring from "the king of the mountains." What mountain or mountains the Hindu or Hinduized dynasty of Palembang conceived itself to have come from, we do not know. Possibly it may have been a mountain in India, though the later Malay legend locates it in Southern Sumatra. Nor does it very much matter. But the epithet definitely proves that the Mahārāja of Srīvijaya who set up the inscription at Vieng Sa in what is now lower Siam was head of the state which more than two centuries later was ruled by the kings who built the temple at Negapatam. And that state was I Tsing's Shi-li-fo-she, the Sarbaza or Sribuza of the Arabs, no longer to be read as Srī Bhoja but Srīvijaya, and certainly Palembang.

For these important additions to our knowledge of Malay history we are indebted to an excellent paper by M. G. Cœdès in the *Bulletin de l'Ecole Française d'Extrême-Orient* (1918), Tome XVIII, No. 6, entitled "Le Royaume de Crīvijaya," to which the reader should refer for the details of the evidence and many further particulars. The conclusions arrived at seem irresistible. At the very least, they point to the Mahārāja of Palembang having held for several centuries a number of "Straits Settlements," the northernmost of which made him for some time a near neighbour of the great Indo-Chinese power of Camboja. In fact a relatively late (probably 12th century) inscription referring to him and apparently executed by his order is in the Cambojan language, but in a script which in those days was common in Western Indonesia and is almost identical with the contemporary script of Burma.

What bearing has all this on the date when the Malays first really colonized the Peninsula? Apart from the few northern settlements actually mentioned, it is hard to say. But it seems reasonable to assume that the Mahārāja garrisoned these with his own people. Kĕdah, therefore, may have been the first really Malay (or at any rate Sumatran) settlement in the Peninsula, and there were others beyond it, in the country that is now Siamese. But we hear nothing of settlements in the South of the Peninsula, except Singapore and that at no very early date. This seems to fit in pretty well with the evidence that the North contained fairly civilized Buddhist states, while there is comparatively little trace of civilization in the South in pre-Muhammadan days.

To what period then must we refer the Mon-Khmer influence which is incontestably evidenced by the linguistic characteristics of the "aborigines" of the Peninsula, for instance by the unquestionably Mon numerals of the Southern Sakai (Bĕsisi, etc.)? Are we compelled to push it further back than the 7th or 8th century A.D.? Or must some other explanation be invented to account for it? Did the so-called aborigines drift into the Peninsula from Indo-China after the Malay colonization had actually begun? That seems very improbable, but it is difficult to feel positive about the matter; there are still too many unknowns in the history of the Peninsula. It seems certain now that some portions of it, at any rate, fell under Sumatran political influence as early as the 7th or at latest the 8th century. But at first they were merely trading stations, and it does not follow that Malay colonization on a large scale set in immediately. Perhaps some day the veil which shrouds the early history of the Peninsula will be still further lifted. In the meantime we have to thank M. G. Cœdès for the new light he has thrown on a very obscure matter. He has focussed upon it evidence derived from many sources and has added to the subject a new interest.

Postcript.

Since the above was written, Dr. N. J. Krom, formerly head of the Archæological Survey in the Dutch East Indies and now Professor of the Archæology and Ancient History of the Dutch East Indies in the University of Leyden, has contributed some very important and interesting additional facts to the discussion. In his inaugural address of the 3rd December, 1919, he pointed out that the evidence of Javanese inscriptions shows that as early as 778 A.D. the dynasty of "the king of the mountains" was ruling Central Java, and it seems to have continued to do so for about a century, during which period it erected important monuments there. Meanwhile Eastern Java was under another dynasty, which claimed South Indian origin. It would appear that in those early days the Sumatran house was the more powerful. It continued to maintain, or at any rate claim, supremacy over Western Java (Sunda) till about 1200 A.D. There is much reason to believe that its influence on the development of Indian civilization in Java was very great, and that amongst other things it was the means of introducing the Mahayana form of Buddhism (which we know prevailed at Palembang) into Java.

It seems, therefore, that we have to conceive the existence, during the period in question, of two great rival powers in the Archipelago, the one centred in Southern Sumatra, the other in Eastern Java. Until well into the 13th century, the former was the stronger. Then, by degrees, the Javanese power, soon to be centred at Majapahit, gained upon it, and eventually completed its ruin by conquering its capital and many of its outlying possessions and dependencies somewhere about 1377 A.D.

C. O B.

HISTORY OF KEDAH.

By R. O. Winstedt.

An Arab voyager Ibn Khordadzbeh (846 A.D.) wrote in his *Kitab al-masalik wa-l mamalik* of an island called "Kilah" which contained *tin mines* and bamboo forests. Another Arab voyager Sulaiman (851 A.D), edited about 920 A.D. by one Abu Zaid of Siraf, wrote of "Kalah-bar," as "a dependency of Zabej," which is probably Srivijaya *i.e.* Palembang:—Chao Ju Kua in 1250 A.D. recorded that Langkasuka (*i.e.* Kedah), Trengganu, Pahang and Kelantan were all subject to Palembang. ("Encyclopaedie van Nederlandsch-Indie" *sub* "Tochten," "Livres du Merveilles de l'Inde, Leyden 1883-6, pp. 255-264 and Reinaud's "Relations des voyages faits par les Arabes et les Persans," pp. LXII, LXXXV, 17, 93, 94.) Ibn Muhalhal, who flourished about 941 A.D. (but whose account is of doubtful authenticity), describes "Kalah" as the last place visited by ships going eastward, a great city with high walls and gardens and canals, "where are the mines of lead" or tin "called *kala'i*, which is found in no part of the world except Kalah;" a place famous for the best "swords" in India; its inhabitants were Buddhists. "Kilah" or "Kalah" is generally identified as Kedah: the mention of tin-mines places it certainly in the Malay Peninsula, as Bangka was discovered much later. And probably this "Kalah" is identical with "Kora" or "Kala" of the Chinese chronicles of the T'ang Dynasty (618-916):—pp. 241-3, Vol. 1, Series II, "Essays relating to Indo-China": "Kora" had a king whose family-name was Sri Pura and his personal name Misi Pura; "the dead were buried and their ashes put into a jar and sunk in the sea; the customs of the people were about the same as in Siam."

The history of the Liang dynasty (502-665 A.D.) (*ib.* pp. 135-7) gives an account of a country called Langgasu or Langga, whose people said that their country had been established 400 years earlier: its inhabitants were ardent Buddhists. This, it is sometimes said, is a reference to Langkasuka, the old name of Kedah recorded in the *Hikayat Marong Mahawangsa* and in popular folk-tales—("Fasciculi Malayenses," pt. II (*a*), pp. 25-6; Skeat's "Fables from an Eastern Forest," pp. 49-51 and 81) "Kedah may very well be the old native name of the country and Langkasuka its literary name. Many places in Further India and the Islands bear two names: thus, Pegu was styled Hamsawati, Tumasik was called Singapura: similarly Siak (in Sumatra) is known as Sĕri Indrapura, and many other such instances could be given. All this merely illustrates the varnish of Indian culture, which spread over these regions during the first dozen centuries or so of our era."

(Blagden, J. R. A. S., July 1905). One may add to these instances Indrapura the old court name for Pahang. The term Langkasuka now survives only as the name of a small tributary to the upper reaches of the Perak river. The *Ht. Marong Mahawangsa* relates how Sri Mahawangsa, the third ruler of Kedah, removed (to Serokam) from Langkasuka, because it was too far from the sea. (J. R. A. S., S. B. 72, p. 64) : "it lay near Gunong Jerai" (*ib.* No. 53, p. 148). The Javanese poem, the *Nagarakretagama* composed in 1365 A.D., mentions both Kedah and Langkasuka among a list of Peninsular settlements tributary to Majapahit (*ib.* pp. 145-9). But though Langkasuka was an old name for Kedah, the Chinese Langa-ya-hsiu is more likely to have been Tenasserim.

Of the prevalence of the Buddhist religion evidence exists in certain inscriptions found in Kedah and Province Wellesley, going back according to Kern to 400 A.D. (*ib.* No. 49, pp. 95-101) and having a *Southern* Indian Sanskrit alphabet; and again in inscribed clay tablets found in Kedah in a cave, nine feet above the floor, written according to Kern in Nagari of the 10th century and therefore from *Northern* India. (*ib.* No. 39, p. 205 and cf. J. and P., A. S. Bengal, Vol. III, No. 7, July 1907, where Rakshaldas Banerji has identified five votive tablets from Trang as relics of Mahayana Buddhism belonging to the western group of the Northern Indian Nagari characters of the 11th century A.D., resembling the characters of the Benares grant of Karnadeva and the grants of the Rathors of Kanauj.) Chula (Coromandel) records claim that Kedah was conquered by a Chula king in the 11th century.

Accordingly we know of Kedah till the end of 14th century that it was famous as a mart for tin; its people were Buddhists, and the predominant influence was Indian. Besides this we know that first Palembang and the Chula kings and then the great Javanese kingdom of Majapahit claimed suzerainty over it.

The *Hikayat Marong Mahawangsa* or "Kedah Annals," as the work is termed, records seven pre-Muhammadan rulers of Kedah bearing the Sanskrit-Siamese titles of Marong Mahawangsa, Marong Mahapodisat, Sri Mahawangsa, Sri Indrawangsa, Maha Parita Baria (Raja Bĕrsiong), Phra Ong Maha Podisat, and of Phra Ong Mahawangsa who became its first Muhammadan ruler under the style of Mudzaffal Shah. Some of these titles are not Indian but Indo-Chinese; 'Podisat' for example is 'Bodisat' and the change of sound from sonants to surds is neither Indian nor Malay but characteristically Indo-Chinese occurring in Mon, Khmer, Siamese and Burmese. This is evidence that Kedah fell, after the fall of Palembang and the decay of Majapahit, under the influence of its Northern neighbours, the Siamese.

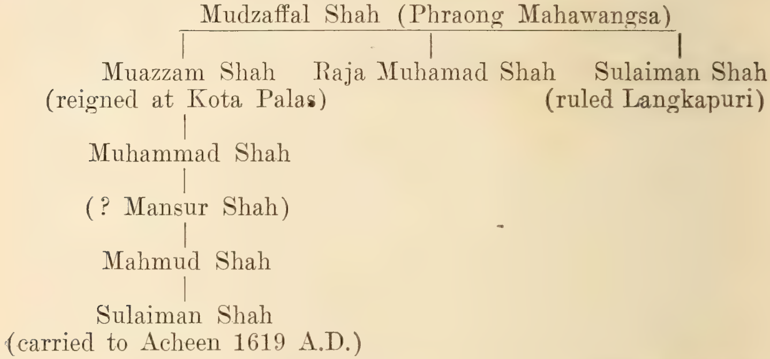
An Achinese account gives 1474 A.D. as the date of the conversion of the first king of Kedah to Islam (Journal of the Indian Archipelago Vol. III, p. 480 and J. R. A. S., April 1909, p. 527).

And the likelihood of that date is confirmed by the story in the *Sĕjarah Mĕlayu* of a Raja of Kedah coming to Malacca to ask for the *nobat* (or royal insignia) from Sultan Mahmud Shah, the last Malay ruler of Malacca, who was driven out by the Portuguese conquest in 1511 A.D. and died in 1513 A.D. (Leyden's "Malay Annals," pp. 321-3). It is reasonable to suppose that the ruler of Kedah was then a Malay. Here, one may observe that in popular tales the Kedah dynasty begins with a tusked cannibal king, the son of an ogress; Blagden has shown that the legend is borrowed from India and is copied from the Buddhist Jataka tales (J. R. A. S., S. B. No. 79): it is possible, however, that the story was adapted to symbolize that the ancestry of the dynasty is not purely Malay.

The Portuguese Barbosa, whose manuscript is dated Lisbon 1516, describes Kedah "as a place of the kingdom of Siam:" to the port "an infinite number of ships resort, trading in all kinds of merchandise. Here come many Moorish ships from all quarters. Here, too, is grown much pepper, very good and fine which is conveyed to Malacca, and thence to China." ("Remusio," Vol. 1, p. 318). The influence of Siam cannot have been great to allow a Raja of Kedah to go to Malacca at the beginning of the 16th century to get regalia from a Malay suzerain! Nor was it great enough to save Kedah from attack by the Portuguese. In 1611 according to De Faria, Dioge de Medoca Furtado sailing down from Tenasserim to Malacca destroyed the towns of "Quedah and Parles" with fire and sword (Danvers' "Portuguese in India," Vol. 11, p. 164).

Again Siamese influence did not baulk Acheen. In 1619 Sultan Iskandar Muda, or Mahkota Alam as he was styled, led the rulers of Kedah and Perak into captivity. The Kedah prince was Sultan Sulaiman Shah (J. R. A. S., S. B. 72, p. 122). Achinese influence lasted some years. (J. I. A. III, p. 480). The "Kedah Annals" have a curious jumbled story that on the conversion of Sultan Mudzaffal Shah to Islam, the king of Acheen and one Shaikh Nuru'd-din sent him two religious treatises the *Siratu'l-mustakim* and the *Babu'n-Nikah*. Now the *Siratu'l-mustakim* was done into Malay by the said Shaikh Nurud-din Muhammad Jilani ibn Ali ibn Hasanyi ibn Muhammad Hamid a'r-Raniri in the year 1634 A.D. (Juynboll's "Catalogue of Malay MSS. in Leiden University Library," p. 257). That detail helps us to fix a date for the composition (or more probably a late recension) of the *Ht. Marong Mahawangsa*. But considering not only that the Achinese annals and the *Sĕjarah Mĕlayu* point to the close of the XVth century as the time of Kedah's conversion to Islam but also that Sultan Mudzaffal Shah the first convert is always regarded as the great-great-great-grandfather of Sultan Sulaiman Shah who was taken to Acheen in 1619 A.D., it is a detail which discredits entirely the chronology of the "Kedah Annals." From the confusion of rulers it must have been interpolated long after 1634.

The list of the early Muhammadan kings given in those "Annals" is as follows:—



It was in the reign of Sultan Muazzam Shah, the second Muhammadan ruler of Kedah, that the "Kedah Annals" profess in their preface to have been composed (J. R. A. S., S. B. 72, p. 37). If that statement is true at any rate of the nucleus of the book, it would be for Malay histories of a very respectable age indeed. But that there have been many recensions is clear not only from the incident of Shaikh Nuru'd-din's *Siratu'l-mustakim,* but also, as we shall see, from the completion of the list of rulers down to very recent times (*ib.* p. 122). Another anachronism may be the mention of Kuala Changgong, if that name means Rangoon, which latter name dates from 1755 A.D. only.

Just as Siamese influence had not saved Kedah from the Portuguese and the Achinese, so too it did not save it from the Dutch. Having trade routes not only from Singapore but from Patani it was a very important centre. "On the 11th July 1642, the king of Kedah, whom Matelief had visited in 1606, agreed with the (Dutch East India) Compagnie to let her have half of the tin-production of his country at a fixed price and not to admit ships without the Compagnie's permit. An attempt was made to obtain a similar contract from Perak which was richest in tin. But that country refused, giving as a reason its vassalage to Acheen. On Kedah a tight hold was kept. The instructions to 'break up the office there' (1686) also contained orders 'for the blockade of its port.' This command was repeated three years later: the Governor was told to 'blockade the river of Kedah as closely as possible;' in 1663 the 'Dagregister' mentions that 'the river of Queda is still being blockaded' and in 1664 the Netherlands Indian Government resolves, in spite of the king's wish for peace, 'to continue the blockade of Queda on the old footing.' Kedah did not bear this meekly; in 1676 Governor Bort writes to Batavia that 'the Compagnie's cruising sloops had been assailed many times about Pera and Queda by Malay pirates.' And shortly afterwards he reports that 'about Dinghdingh another sloop with a crew of six had been rushed by the Quedaze pirates owing to the crew's own carelessness. All of the crew were severely wounded and the scoundrels could not be overtaken.' Gold came from Kedah and elephants. In the first quarter of the 18th century Valentijn writes that 'several offices, to wit Peirah, Kedah, Ujang Salang and Indragiri are subordinate to the Government of Malacca" (J. R. A. S., S. B. 67, pp. 57-84).

In spite of having done nothing to ward off the aggression of Portuguese, Achinese and Dutch. Siam still claimed suzerainty over Kedah. "Reference might" be "had to the works of Abbe Choisy in 1686 and to M. de la Loubere's History of Siam in 1678; by both of whom Kedah is described as being, at least, tributary to Siam. It rebelled according to these authors in 1720 (!)—a fact implying subjection—but was speedily reduced by Siam to obedience" (J. I. A. III, p. 601, Col. Low).

Trouble of a milder kind was impending from another quarter. Thomas Bowrey says that there was a British factory in Kedah from 1669 till 1675 but that it was a complete failure.

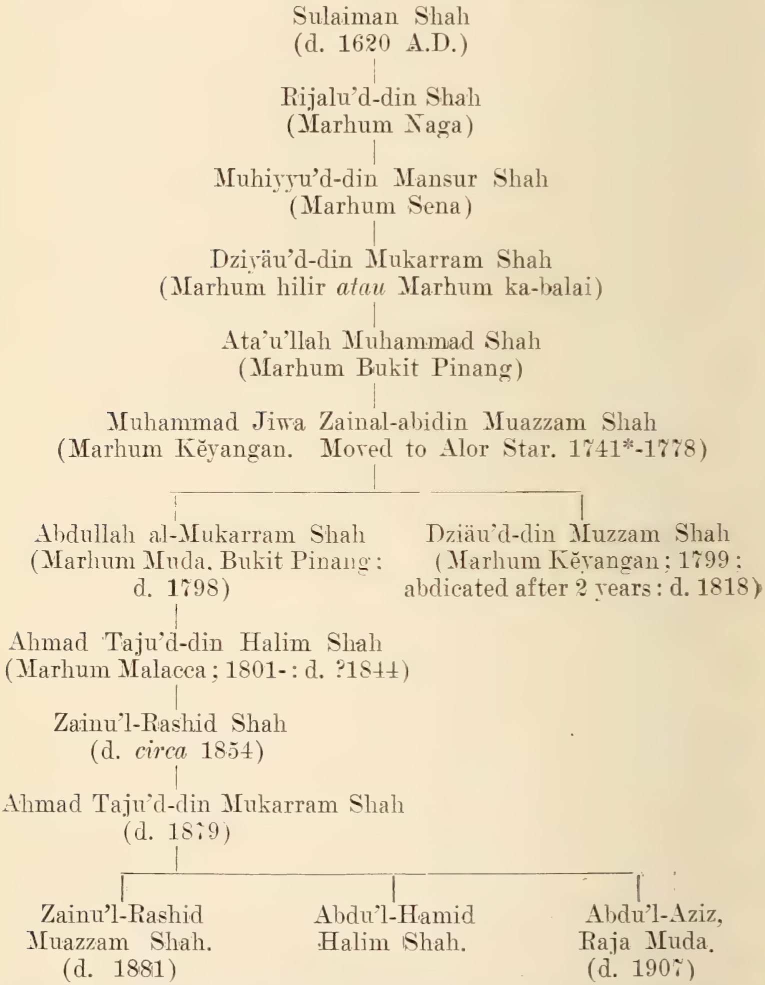
In 1770 affliction came from yet another side. The Bugis, having established themselves in Selangor, attacked Kedah and burnt the town. Is the invasion of Kedah by *Kĕlana* Hitam (J. R. A. S., S. B. 72, p. 82) an interpolation in the *Ht. Marong Mahawangsa* perhaps reminiscent of this attack?

Accounts of the events leading up to and consequent on the acquisition of Penang and Province Wellesley by the British appear in J. R. A. S., S. B. No. 67 pp. 76-7, and in Swettenham's "British Malaya," pp. 42-53. A version more favourable to the British and more closely based on the treaties and correspondence ("Treaties and engagements entered into or effecting the Native States of the Peninsula:" Singapore 1889, pp. 61-71) may be read in Wright and Reid's "The Malay Peninsula," pp. 49-87.

Just before the Siamese invasion. Kedah acting on instructions from Siam had attacked Perak and in 1819 claimed to have conquered it.

Treated in 1786 as an independent state. Kedah was recognized by England in 1826 as tributary to Siam. There were two reasons for this recognition. The immediate object was to prevent the Siamese from co-operating with the Burmese during the first Burmese war: and there was the further object of defining the position of Siam in the north of the Malay Peninsula. The Treaty recognized Penang and Province Wellesley as English countries. It laid down that Perak was independent and should not be attacked: the Raja could send the gold and silver flowers to Siam if he liked. The Siamese were to remain in Kedah: and the English were not to allow the exiled Raja of Kedah to settle in Penang, Province Wellesley, Perak, Selangor or Burma. (Aitchison's "Treaties, Engagements and Sanads," vol. II, pp. 351, 369-71).

The MSS. of the *Ht. Marong Mahawangsa*, that used by Low (J. I. A. Vol. III), that in the Maxwell collection at the Library of the Royal Asiatic Society (London). Wilkinson's edition reprinted in J. R. A. S., S. B. 72, and von de Wall's MS. now in the library of the Batavia Society (van Ronkel's "Catalogus," Verhandelingen van het Bataviaasch Genootschap Deel LVII, pp. 290-294) all give the same list of the Muhammadan rulers of Kedah down to Ahmad Taju'd-din who ascended in 1820 A.D. After Sulaiman Shah, who died at Acheen the list continues:—



Sulaiman Shah
(d. 1620 A.D.)

Rijalu'd-din Shah
(Marhum Naga)

Muhiyyu'd-din Mansur Shah
(Marhum Sena)

Dziyäu'd-din Mukarram Shah
(Marhum hilir *atau* Marhum ka-balai)

Ata'u'llah Muhammad Shah
(Marhum Bukit Pinang)

Muhammad Jiwa Zainal-abidin Muazzam Shah
(Marhum Kĕyangan. Moved to Alor Star. 1741*-1778)

Abdullah al-Mukarram Shah
(Marhum Muda, Bukit Pinang:
d. 1798)

Dziäu'd-din Muzzam Shah
(Marhum Kĕyangan; 1799;
abdicated after 2 years: d. 1818)

Ahmad Taju'd-din Halim Shah
(Marhum Malacca; 1801-: d. ?1844)

Zainu'l-Rashid Shah
(d. *circa* 1854)

Ahmad Taju'd-din Mukarram Shah
(d. 1879)

Zainu'l-Rashid
Muazzam Shah.
(d. 1881)

Abdu'l-Hamid
Halim Shah.

Abdu'l-Aziz,
Raja Muda.
(d. 1907)

Newbold gives the dates for Muhammad Jiwa Zainal-abidin and Abdullah but seems to have got the family relationships wrong. For the names and dates after Ahmad Taju'd-din, who died about 1844 A.D., I am indebted to a list compiled for Mr. E. A. G. Stuart by Wan Yahaya Haji and also to the account in the " Straits Directory." Ahmad Taju'd-din Halim Shah began his reign at Kuala Kedah. In 1821 the Siamese invaded Kedah and he fled to Province Wellesley and Klawai. The Siamese ruled Kedah for 23 years, dividing it into four parts: (1) Kedah, (2) Setul ruled by Tunku Bisun, (3) Perlis ruled by Sayid Husain Jamalu'd-din, (4) Kubang Pasu ruled by Tunku Anum. In six years the population was reduced from 180,000 to 6,000. In 1831 Sultan Ahmad Taju'd-din was removed to Malacca; in 1836 having got permission to leave Malacca for a visit to Deli he went to Bruas and prepared to attack Kedah, when a British gun-boat captured and took him to Penang. In 1843 Kedah, the division, was restored to him under Siamese protection and he returned to reign at Kota Kuala Muda, as Alor Star was overgrown with forest. He was buried at Langgar. Later Kubang Rusa was restored to Kedah, but Perlis remains independent and Setul is still a part of Siamese territory.

---

* There is a coin of this ruler dated 1154 A.H. = 1741-2 (Millies' 'Recherches sur les Monnaies des Indigênes de l'Archipel Indien et de la Peninsula Malaise' (1871), p. 133 and plate. Cf. J. R. A. S., S. B., No. 27, p. 132).

In 1909 suzerainty over Kedah and Perlis was transferred by Siam to Great Britain.

There are two interesting points in the " Kedah Annals " which deserve remark. Allusion is made to the fact that Gunong Geriang, Gunong Jerai and Gunong Jambul were once islands (J. R. A. S., S. B. 72, p. 69). Now geologists tell us this is true, but it was thousands of years ago, too far back for tradition to have come down; so that presumably Malays must have observed the evidence of sea-shells inland and drawn haphazard the correct conclusion.

Again, the "Annals" record a Kedah legend (which I shall show in the next Journal to be of foreign origin) as to the founding of Perak (*ib.*, p. 62 and No. 9, pp. 85-86 and J. R. A. S., April 1905) and say that the palace of the Kedah Raja who became the first ruler of Perak was erected at Pulau Indra Sakti. But according to Perak history recorded in the *Misa Mĕlayu,* an XVIIIth century history of that state, Sultan Iskandar who came to the throne in 1765 A.D. was the first ruler of Perak to build a palace on an island down the Perak River, called Chempaka Sari, till he changed its name into Indra Sakti. The legend of the "Annals" is a late interpolation. But does it refer to an earlier Pulau Indra Sakti? Did Kedah ever hold continuous sway over the northern part of Perak, before the present Perak dynasty was founded? On these points there is no evidence.

I am indebted to Mr. C. O. Blagden for much valuable information towards the preparation of this paper: and in connection with it should be read his article in this number of the Journal on "The Empire of the Maharaja."

TAJU'S-SALATIN.

"The Crown of Kings."

By R. O. Winstedt.

Dutch scholars have done much towards preparing a history of Malay literature, but as Dr. Ph. S. van Ronkel, the successor of van Ophuijsen in the chair of Malay at Leiden, points out in the paper (*Tijdschrift Ind. T. L. en Vk., deel XVI*) which I here summarize, a great deal remains to be studied not only as to the spread of tales in the Archipelago itself but as to the source and date of borrowings from Arab, Persian and Indian literature. Brandes has studied the sources of the *Hikayat Bayan Budiman*, the *Hikayat Kalila dan Damina*, the *Hikayat Gholam* and the *Hikayat Bakhtiar*: van Ronkel has written a book on the *Ht. Amir Hamza* and papers on the *Taju's-Salatin*, the *Ht. Gul Bakawali* (Le Roman de la Rose dans la literature malaise), the *Ht. Tamim ad-dari* and the *Ht. Sama'un* and above all an exhaustive catalogue of the great collection of Malay MSS. in the possession of the Batavian Society, of which it suffices to say that it is a worthy counterpart of Juynboll's catalogue of the Malay MSS. at Leiden. Gradually material for a history is being accumulated. But the field is dreary and the labourers are few.

Early scholars supposed that Malay borrowings were from the Arabic. Now we know that not even all Malay theological works were translated from the Arabic. India has been the source of much Malay literature and of popular mysticism:—*vide* Snouck Hurgronje's book on "The Achehnese." For a long time Persian was the official language of India, especially of northern India. To the Persian language, but not therefore to direct Persian influence, Malay is indebted for its script, the name of its vowel points, certain loan-words and many legends and romances. Sometimes the borrowing has been direct, sometimes by way of some Indian translation. The comparison of Malay romances with Hindustani and Tamil literature might well engage the interest of our local students of those languages.

For the *Taju's-Salatin*, van Ronkel alludes to the eulogies unduly bestowed on this work by Roorda van Eysinga, its first editor, and by the grammarian Werndly. That sound scholar van der Tuuk gave a note of warning and criticized the poorness of van Eysinga's text: a criticism repeated by Blagden and myself on p. 189 of our "Malay Reader" (Clarendon Press).

Werndly and van Eysinga call the author Bokhari of Johore. The true explanation is that he was "a Bokhari," a native of Bokhara, practising the trade of a *jauhari* "a jeweller."

Ethé in his account of modern Persian literature speaks of a Bokhari Jauhari mentioned in the literary biography of Suhuf

Ibrahim as a court panegyrist under the Seljukian princes, Malikshah (1152), Muhammad (1153-1160), Sulaiman Shah and Arslan Shah bin Tughrul (1161-1176), who wrote an epic called *Hikayat -i Amir Ahmad u Mahisti.* But to judge from references to books in the *Taju's-Salatin,* this man lived too early to be our author.

The introduction to the *Taju's-Salatin* acknowledges indebtedness to many sources. These sources have Arabic titles, but some are well-known Persian works found also in Arabic, and some Persian translations from the Arabic. One of the sources given is the *Akhlaq-i-Muhsini,* written in 1494 by Husain bin Ali alwaiz al Kashifi.

On page 43 (van Eysinga's text) the author quotes from the *Tanhibu'l-Ghafilin;* probably an Arabic religious tract translated into Persian—there are several works of that name, Persian, one Hindustani and at least one in Malay (van Ronkel's "Catalogus" of MSS. at Batavia, p. 412: and a Malay version has been printed at Mecca and is on sale in Singapore). The *Sijar u'l Muluk,* a well-known Persian work composed by the famous Vizier Nizam u'l Mulk, born in 1017, is referred to on pp. 65 and 203. A Persian ethical treatise (Ethé p. 347) is cited on p. 116. A Persian verse is quoted on p. 117 out of the 'Secrets of Attar,' a Persian work by the famous mystic and poet, Abu Hamid Muhammad bin Abibakr Ibrahim Farid u'd Din Attar, a dealer in perfumery who died 114 years old in 1230. On p. 151 is mentioned the famous Persian romance of Mahmud and Ayaz: the oldest version is by Fashru'd Din Ali Safi (died 1532), but there are others by Anisi (died 1605), Zulali (composed 1593-1615), Mirza Muhammad Ali Saib (d. 1677) and later by Mir Abu Talib. On the same page are mentioned the "Arab story" of Laila wa Majnun and the "Persian stories" of Khusrau wa Shirin, and of Yusof and Zulaikha. The story of Khusrau and Shirin is told in verse by Fashru'd Din Asad Nizami and by many later writers. Firdausi and earlier authors have told the story of Yusof and Zulaikha.

The introduction to the *Taju's-Salatin,* the type of book, the names of princes and ministers are all Persian. In Persian more than in Arabic ethical treatises one finds verses, stories and texts from the Koran introduced. The verses in the book are all in forms of Persian prosody, the *mathnawi, ruba'i, ghazal*: they are mostly didactic or sing the praises of the first four khalifs or of the merits of the author's work. On p. 47 Kayomarz the first of the old kings of Persia is mentioned as a son of Adam. Cf. also p. 102.

Sometimes a Persian word is explained, *e.g.* on p. 134, by a later hand. The Persian word for the New Year is used. There are Persian forms of the genitive: *e.g.* Omari-Abdul-Aziz.

The chronogram in the introduction gives 1012 A.H. (1603 A.D.) as the date of composition.

Though no Persian original has been discovered, clearly the book is of Persian origin and, considering there was no direct Persian influence on the Malays, probably was derived from India.

The Genealogy of Malacca's Kings from a copy of the
Bustanu's—Salatin.

By R. O. Winstedt.

This interesting and important passage was copied for the late Mr. W. Barnes from a copy of the *Bustanu's-Salatin* belonging, it is said, to H. H. the late Sultan of Pahang, when H. H. was still Tengku Besar. Apparently it had been the intention of Mr. Barnes to offer it to the Society, but death frustrated him.

The interest of the passage lies in the light it throws on Malay history. Firstly, it gives the variant list of the kings of Singapore and Malacca, to which Wilkinson drew attention on pp. 15 and 21 of his *History, Part 1, Papers on Malay Subjects Kuala Lumpur, F.M.S. 1908.* It gives the orthodox list of the Malacca royal house down to the date of the Portuguese conquest and then continuing their history down to the birth of Sultan Iskandar Ala'u'd-din Mughayat Shah II of Acheen (1636-1641) it throws light on the earlier history of Pahang and Johor.

It had been the intention of Mr. Barnes to compare this version with the version of the *Bustanu's-Salatin* at Leyden, but it is hard for Europeans in the East to find time and opportunity for such comparative work. Print our local manuscripts, when obtainable, and once in print passages can easily be compared. Mr. Barnes had got one variant version, the source of which I have been unable to trace: its variants I have cited in foot-notes.

The *Bustanu's-Salatin* was composed at Acheh by Shaikh Nuru'd-din Muhammad Jilani ibni Hasanji ibni Muhammad Hamid a'r-Raniri, who also composed an *Ht. Iskandar Dzu'l-Karnain* in Malay as he tells us on p. 14, vol. II of Wilkinson's edition of the *Bustanu's-Salatin*: in 1634 he had translated the *Siratu'l-mustakim* into Malay. (*Vide* also Snouck Hurgronje's "The Achehnese," vol. I, p. 12). After the fall of Pasai, Malacca, and after the conquest of Malacca, Acheen became the centre of Muhammadan religion and learning. It was Sultan Iskandar the second of Acheen and Shaikh Nuru'd-din who sent the *Babu'n-Nikah,* the *Siratu'l-mustakim* and a complimentary letter to the Raja of Kedah on the establishment of Islam in that country: so the "Kedah Annals" tell us.

Possibly some of the historical detail given in this passage has been added by a later hand.

Mr. R. J. Wilkinson printed 2 vols. of the *Bustanu's-Salatin* (American Mission Press, Singapore, 1900), but most unfortunately his MS. was lost before the rest, which contains the chapters on peninsular Malay history, could be printed. Another MS. of the work, complete or incomplete I cannot say, No. 207 in the Logan Library, I have failed to trace. Codex 1971 and Codex 5303 of Leyden University Library (CCXVII in Juynboll's 'Catalogue' p. 216) and a MS. in the Library of the Royal Asiatic Society apparently contain the passage here printed. It is greatly to be hoped that Mr. Wilkinson's MS. or the Logan MS. or some other complete copy of this most scholarly book may yet be unearthed in the Peninsula and the remainder printed. That here and there a rare MS. copy of the book does exist is certain. Of Mr. Barnes' texts I have found only this Romanized extract: the original MSS. he used I have been unable to trace.

Students of history should consult in studying this extract the brilliant paper by Dr. Raden Husain Jayadiningrat on the "Soeltanaat van Atjeh" in Bijd. T. L. en Vk. N. I., Kon. Inst. 8°, part I, 1910.

FASAL YANG KĔTIGA PADA MĔNYATAKAN TARIKH SĔGALA RAJA-RAJA.

Tatkala kahwin dĕngan anak Raja Kida Hindi hingga datang kapada hikayat Raja Suran masok ka-dalam laut. Maka tanah yang di-jijaki-nya tatkala turun itu sapĕrti warna ĕmas rupa-nya datang sĕkarang dan padi yang di-atas bukit itu pun bĕrbuahkan ĕmas dan bĕrdaunkan perak bĕrtangkai[1] suasa; hingga pada masa ini pun ada padi itu sa-tangkai di-taroh Maha Indĕra Bijaya dan Sang Buana kĕdua: ia-lah daripada anak chuchu orang mĕnyambut raja itu.

Hatta maka Sang Sapurba Hindi pun di-ambil orang-lah Minangkabau di-jadikan-nya akan raja-nya, dan Sang Maniaka di-ambil orang-lah Tanjong Pura di-jadikan-nya akan raja-nya. Dan Sang Nila Utama di-ambil Dĕmang Lebar Daun di-jadikan-nya akan raja-nya di-nĕgĕri Palembang: bĕbĕrapa lama-nya dalam kĕrajaan itu, maka ia pun bĕrgĕlar Sang Tĕri Buana lalu kahwin dĕngan Raja Bentan. Kĕmudian dari itu, maka di-pĕrbuat-nya sa-buah nĕgĕri di-Tĕmasek di-namai-nya Singapura. Hatta maka ia pun diam-lah di-sana bĕranak dua orang laki-laki, sa-orang bĕrnama Raja Kĕchil Bĕsar dan sa-orang bĕrnama Raja Kĕchil Muda. Maka Raja Kĕchil Bĕsar bĕristĕrikan anak Raja Kĕling dan Raja Kĕchil Muda bĕristĕrikan chuchu Dĕmang Lebar Daun. Kĕmudian dari itu, maka Sang Tĕri Buana mangkat-lah.

Maka Raja Kĕchil Bĕsar-lah kĕrajaan bĕrgĕlar Paduka Sĕri Pikrama Wira, dan Raja Kĕchil Muda jadi Bĕndahara. Maka Paduka Sĕri Pikrama Wira[2] bĕranak dĕngan Raja bĕnua Kĕling itu sa-orang laki-laki bĕrnama Iskandar Shah. Kĕmudian dari itu Sĕri Pikrama Wira[3] pun mangkat-lah.

---

[1] *Bĕrbatangkan* in the other M. S.

[2] After *wira* inserts *'diraja*. [3] Inserts *'diraja*.

Maka Raja Iskandar Shah-lah kĕrajaan bĕrgĕlar Sĕri Rama Adikĕrama.[1] Maka Raja itu bĕristĕrikan anak Pĕrpateh Bĕrmuka Bĕrjajar bĕranak sa-orang laki-laki dan sa-orang pĕrĕmpuan, yang laki-laki itu bĕrnama Ahmad timang-timangan-nya Raja Bĕsar Muda. Shahadan Raja Iskandar Shah itu-lah pĕrtama-tama mĕmbuka[2] nĕgĕri Mĕlaka: ada-lah ia dalam kĕrajaan tiga-puloh dua tahun. Kĕmudian dari itu maka ia pun mangkat-lah.

Maka anak-nya Raja Bĕsar Muda-lah jadi kĕrajaan. Ada pun Bĕndahara Tun Pĕrpateh Bĕrmuka Bĕrjajar ia-itu bĕranak sa-orang laki-laki bĕrgĕlar Sĕri Maharaja Indĕra Purba. Maka Sĕri Maharaja Indĕra Purba pun bĕranak dua orang, sa-orang laki-laki dan sa-orang pĕrĕmpuan: anak pĕrĕmpuan itu di-kahwin Raja Bĕsar Muda; maka bĕranak tiga orang laki-laki sa-orang bĕrnama Raden Bagus dan sa-orang bĕrnama Raja Tĕngah dan sa-orang bĕrnama Raden Isap. Ada pun anak Sĕri Maharaja Indĕra Purba yang laki-laki itu Tun Pĕrpateh Tulus gĕlaran-nya; ia pun jadi Bĕndahara bĕranak tiga orang pĕrĕmpuan kĕtiga-nya di-pĕristĕri anak raja tiga orang itu jua. Sa-tĕlah Pĕrpateh Tulus sudah mati, Raden Bagus-lah jadi Bĕndahara bĕrgĕlar Tun Pĕrpateh Bĕrmuka Bĕrjajar. Kĕmudian dari itu, maka Raja Bĕsar Muda pun mangkat-lah.

Maka anak-nya Raja Tĕngah-lah kĕrajaan. Maka ia pun bĕranak sa-orang laki-laki bĕrnama Raja Kĕchil Bĕsar. Sa-tĕlah itu, maka Raja Tĕngah pun mangkat-lah.

Kĕmudian dari itu, maka Raja Kĕchil Bĕsar-lah kĕrajaan ialah yang pĕrtama-tama masok ugama Islam bĕrgĕlar Sultan Muhammad Shah. Maka Bĕndahara Tun Pĕrpateh Bĕrmuka Bĕrjajar ia pun bĕrgĕlar Sĕri Dewa Raja. Maka Sultan Muhammad Shah bĕristĕri dua orang, sa-orang anak Sĕri Nara 'diraja chuchu Bĕndahara, bĕranak sa-orang laki-laki bĕrnama Raja Kasim dan sa-orang lagi di-istĕrikan Sultan[3] saudara Raja Arkan bĕranak sa-orang laki-laki bĕrnama Raja Hitam. Sa-tĕlah itu, maka Sultan Muhammad Shah pun mangkat.

Kĕmudian dari itu, maka Raja Kasim-lah kĕrajaan di-nĕgĕri Mĕlaka bĕrgĕlar Sultan Mudzafar Shah; lalu baginda kahwin dĕngan anak Bĕndahara Sĕri Amar 'diraja, bĕranak sa-orang laki-laki bĕrnama Raja Abdullah.

Hatta bĕbĕrapa lama-nya, maka Sultan Muzafar Shah pun mangkat-lah.

Kĕmudian dari itu, maka Raja Abdullah kĕrajaan nĕgĕri Mĕlaka bĕrgĕlar Sultan Mansur Shah. Ia-lah yang tĕrlalu bijaksana dan tĕrlalu bĕsar kĕrajaan; ia-lah yang mĕngalahkan nĕgĕri Kampar dan nĕgĕri Siak dan nĕgĕri Indĕragiri dan nĕgĕri yang taalok kapada-nya. Sa-tĕlah itu, maka Sultan Mansur Shah pun mĕnitahkan orang mĕnyĕrang Pahang. Tatkala itu kĕrajaan di-nĕgĕri Pahang Putĕri Onang Sĕri bĕrgĕlar Putĕri Lela Wangsa. Maka

---

[1] Inserts *Wikrama* after *Adikĕrma.*

[2] *Mĕnyusok.*

[3] *Baginda.*

Putĕri itu pun nikah dĕngan[1] Sultan Mansur Shah. Shahadan ada-lah bagi Sultan Mansur Shah lima orang istĕri, pĕrtama anak Raja Pahang, kĕdua anak Raja Majapahit, kĕtiga raja di-Bĕnua China, kĕampat anak Bĕndahara, kelima anak Sĕri Nara 'diraja itu-lah istĕri baginda yang tua. Hatta bĕbĕrapa lama-nya, maka Sultan Mansur Shah pun bĕranak dĕngan Putĕri Lela Wangsa itu dua orang laki-laki, yang tua bĕrnama Raja Ahmad Muhammad Shah dan yang muda bĕrnama Raja Muhammad, dan bĕranak baginda dĕngan putĕri anak Raja Bĕnua China itu sa-orang laki-laki bĕrnama Paduka Mimat, dan bĕranak baginda dĕngan putĕri anak Raja Majapahit itu sa-orang laki-laki bĕrnama Raden Kĕlang, dan bĕranak baginda dĕngan anak Sĕri Nara 'diraja itu dua orang pĕrĕmpuan, dan bĕranak baginda dĕngan anak Bĕndahara itu sa-orang laki-laki bĕrnama Raja Husain. Shahadan ada-lah dalam antara sĕgala anak baginda yang banyak itu, Raja Ahmad Muhammad Shah-lah yang di-kaseh baginda dan di-wasiatkan kĕrajaan akan dia. Bĕbĕrapa lama-nya maka Raja Ahmad Muhammad Shah pun mĕmbunoh anak Raja Bĕndahara Tun Bĕsar. Maka Sultan Mansur Shah pun murka akan dia lalu di-rajakan-nya ka-nĕgĕri Pahang bĕrgĕlar Sultan Muhammad Shah. Sa-tĕlah itu, maka di-wasiatkan Sultan Mansur Shah akan ganti kĕrajaan anak-nya bĕrnama Raden Kĕlang. Hatta bĕbĕrapa lama-nya, maka Raden Kĕlang pun mangkat mĕngĕmbari orang mĕngamok. Sa-tĕlah itu, maka di-wasiatkan Sultan Mansur Shah akan ganti-nya kĕrajaan anak yang bĕrnama Raja Husain. Bĕbĕrapa lama-nya, maka Sultan Mansur Shah pun mangkat. Kĕmudian dari itu, maka Raja Husain-lah kĕrajaan di-nĕgĕri Mĕlaka bĕrgĕlar Sultan Ala'u'd-din Riayat Shah, ia-lah yang tĕrlalu bĕrani lagi pĕrkasa.

Kalakian, maka Raja Muhammad Shah[2] yang kĕrajaan di-nĕgĕri Pahang itu pun mĕminta diri-nya ka-pada adinda baginda Sultan Ala'u'd-din Riayat Shah hĕndak mĕndapatkan baginda[3] ka-nĕgĕri Pahang. Maka di-titahkan Sultan Ala'u'd-din Riayat Shah orang mĕnghantar akan dia ka-nĕgĕri Pahang.

Bĕbĕrapa lama-nya Sultan Ala'u'd-din Riayat Shah pun bĕranak dua orang laki-laki, yang tua bĕrnama Raja Mĕnawar Shah dan yang muda bĕrnama Raja Zainal tĕrlalu elok paras-nya. Sa-tĕlah itu, maka bĕbĕrapa lama pula, Sultan Ala'u'd-din Riayat Shah bĕranak dĕngan istĕri-nya bĕrnama Tun Sĕnaja anak Sĕri Nara 'diraja saudara Tun Tahir yang bĕrgĕlar Bĕndahara Sĕri Maharaja tiga orang, sa-orang pĕrĕmpuan nama Putĕri Hitam, ia pun yang tua; dan yang tĕngah laki-laki bĕrnama Raja Mahmud dan yang bongsu bĕrnama Fatimah. Maka tatkala bĕsar-lah Putĕri Hitam itu, maka di-kahwin Sultan Ala'u'd-din Riayat Shah-lah ia dĕngan Raja Abdullah anak Sultan Ibrahim raja di-nĕgĕri Siak. Kata yang ĕmpunya chĕrita, bahawa Abdullah itu pun bonda-nya anak Sultan Mansur Shah Raja Mĕlaka itu jua, dan akan Putĕri Fatimah itu di-kahwinkan Sultan Ala'u'd-din Riayat Shah dĕngan

---

[1] For *nikah dĕngan* reads *di-nikah.*

[2] Inserts *saudara Sultan Ahmad Shah.*

[3] Reads *kakanda.*

Sultan Mansur Shah anak Sultan Ahmad, chuchu Sultan Ahmad Muhammad Shah yang kĕrajaan di-nĕgĕri Pahang itu. Sa-tĕlah itu, maka Sultan Ala'u'd-din Riayat Shah mĕrajakan anak-nya yang bĕrnama Raja Mĕnawar Shah ka-nĕgĕri Kampar, sĕrta di-anugĕrahi-nya[1] alat kĕrajaan. Maka Raja Mĕnawar Shah pun kĕrajaan-lah di-nĕgĕri Kampar, lalu ia bĕranak sa-orang laki-laki bĕrnama Abdullah. Hatta bĕbĕrapa lama-nya, maka Sultan Ala'u'd-din Riayat Shah pun mangkat.

Kĕmudian pada itu, maka Raja Mahmud-lah kĕrajaan di-nĕgĕri Mĕlaka bĕrgĕlar Sultan Mahmud Shah, lalu baginda kahwin dĕngan putĕri anak Sultan Ahmad Muhammad Shah yang kĕrajaan di-nĕgĕri Pahang itu, bĕranak lima orang, pĕrĕmpuan dua orang, laki-laki sa-orang bĕrnama Raja Ahmad Muhammad ia-lah di-wasiatkan Sultan Mahmud Shah akan ganti-nya kĕrajaan.

Shahadan pada zaman Sultan Mahmud Shah-lah nĕgĕri Mĕlaka di-ambil Fĕringgi. Maka Sultan Mahmud Shah pun undur ka-Ujong Tanah lalu di-pĕrbuat[2] sa-buah nĕgĕri. Maka di-namaï-nya nĕgĕri Johor. Sa-tĕlah itu, maka Sultan Mahmud Shah pun bĕr-istĕri pula dĕngan Raja Kĕlantan yang bĕrnama Putĕri Onang Kĕning bĕranak tiga orang, dua orang pĕrĕmpuan, sa-orang laki-laki; yang tua bĕrnama Putĕri Mah, yang tĕngah bĕrnama Putĕri Dewa dan yang bongsu bĕrnama Raja Mudzafar. Maka tatkala bĕsar-lah Putĕri Mah itu, maka di-kahwinkan Sultan Mahmud Shah dĕngan anak Raja Abdullah, bonda-nya Putĕri Hitam anak Sultan Ala'u'd-din Riayat Shah jua. Bĕbĕrapa lama-nya, maka Putĕri Mah bĕranak[3] ĕmpat orang laki-laki, tiga orang pĕrĕmpuan, dan yang laki-laki itu pĕrtama Raja Jamal, kĕdua Raja Biajid kĕtiga Raja Isap, kĕĕmpat Raja Dollah; dan yang pĕrĕmpuan itu pĕrtama Putĕri Puteh, kĕdua Putĕri Buntat, kĕtiga Putĕri Dewi. Sa-tĕlah itu, maka Sultan Mahmud Shah kahwin dĕngan anak Bĕndahara Sĕri Maharaja bĕrnama Tun Fatimah, bĕranak sa-orang laki-laki bĕrnama Raja Raden. Dan ada-lah Sultan Mahmud Shah itu bĕranak laki-laki dan pĕrĕmpuan dĕngan gundek-nya. Maka anak-nya yang pĕrĕmpuan bĕrnama Putĕri Dewi bonda-nya Putĕri Onang Kĕning itu pun di-kahwinkan baginda dĕngan anak Sultan Mahmud Shah raja di-nĕgĕri Pahang bĕrnama Sultan Zainu'l-abidin Hatta bĕbĕrapa lama-nya maka Sultan Zainu'l-abidin Shah pun bĕranak dĕngan Putĕri Dewi itu ĕmpat orang laki-laki dua orang pĕrĕmpuan, dan yang laki-laki itu bĕrnama Raja Mansur dan yang sa-orang bĕrnama Raja Jamal dan yang pĕrĕmpuan itu sa-orang bĕrnama Putĕri Khalijah dan sa-orang bĕrnama Putĕri Bongsu. Hatta bĕbĕrapa lama-nya, maka Sultan Mahmud Shah pun mangkat.

Kĕmudian dari itu Raja Raden-lah kĕrajaan bĕrgĕlar Sultan Ala'u'd-din Shah: kĕrana bonda-nya Tun Fatimah itu sangat di-kaseh Sultan Mahmud Shah, sĕbab itu-lah ia bĕroleh kĕrajaan.

---

[1] Inserts *dĕngan.*
[2] Inserts *-nya.*
[3] Inserts ***tujoh orang.***

Hatta maka Sultan Ala'u'd-din Shah pun kahwinkan dĕngan anak Sultan Mahmud Shah saudara Sultan Zainu'l-abidin Shah yang kĕrajaan di-nĕgĕri Pahang itu, bĕranak dua orang sa-orang Mahmud Shah di-timangkan-nya Raja Kĕchil Bĕsar dan sa-orang pĕrĕmpuan bĕrnama Putĕri Fatimah. Bĕbĕrapa lama-nya maka Putĕri Fatimah di-kahwinkan Sultan Ala'u'd-din Shah dĕngan anak Sultan Zainu'l-abidin Shah yang di-nĕgĕri Pahang bĕrnama Sultan Mansur Shah. Hatta bĕbĕrapa lama-nya, maka Sultan Mansur Shah pun bĕranak dĕngan Putĕri Fatimah dua orang, sa-orang laki-laki dan sa-orang pĕrĕmpuan; maka yang pĕrĕmpuan itu bĕrnama Putĕri Puteh, timang-timangan-nya Putĕri Kĕchil Bĕsar, dan laki-laki itu bĕrnama Saleh.[1] Sa-tĕlah itu, maka Raja Mahmud Shah anak Sultan Ala'u'd-din Shah itu pun kahwin dĕngan Putĕri Khalijah anak Sultan Zainu'l-abidin Shah Pahang lalu mangkat ia di-sana. Kata yang ĕmpunya chĕrita, bahawa Sultan Ala'u'd-din Shah itu banyak bĕranak pĕrĕmpuan dĕngan gundek-nya yang banyak itu: sa-orang jua bĕranak laki-laki, maka di-namaï baginda Sultan Ala'u'-d-din Shah akan anak-nya itu Raden Bahar. Maka tatkala di-pĕrlakukan Allah subhanahu wa-taala pada[2] kudĕrat-nya atas sĕgala hamba-nya, maka orang Acheh pun datang mĕnyĕrang Johor lalu di-alahkan-nya, maka Sultan Ala'u'd-din Shah dĕngan sĕgala anak istĕri pun di-bawa mĕreka itu-lah ka-Acheh[3] dan tatkala itu kĕrajaan di-nĕgĕri Acheh Sultan Ali Mughayat Shah: sa-tĕlah itu, maka Raden Bahar pun di-ambil Sultan Ali Mughayat Shah akan mĕnantu-nya, lalu di-surohkan ia kĕmbali ka-Johor akan mĕnggantikan kĕrajaan ayah-nya.

Hatta maka Raden Bahar pun kĕmbali-lah ka-Johor, dĕngan takdir Allah taala tiada bĕrapa lama-nya maka ia pun di-bĕri orang makan rachun lalu mangkat-lah ia. Kĕmudian dari itu maka putus-lah salasilah anak chuchu Raja Mĕlaka dalam nĕgĕri Johor.

Shahadan kĕmbali-lah kami ka-pada hikayat Sultan Ahmad Muhammad Shah anak Sultan Mansur Shah yang kĕrajaan di-nĕgĕri Pahang itu, kahwin dĕngan chuchu Sultan Iskandar Shah raja di-nĕgĕri Kĕlantan bĕrnama Putĕri Mĕngindĕra. Hatta bĕbĕrapa lama-nya maka baginda pun bĕranak tiga orang laki-laki, yang pĕrtama bĕrnama Ahmad, kĕdua Raja Jamal, kĕtiga Raja Mahmud. Sa-tĕlah itu, maka Sultan Ahmad Muhammad Shah pun mangkat. Kĕmudian dari itu, maka Sultan Ahmad-lah kĕrajaan di-nĕgĕri Pahang lalu baginda bĕranak dĕngan gundek-nya sa-orang laki-laki bĕrnama Raja Mansur lalu di-rajakan-nya Sultan Ahmad anak-nya itu; maka ia pun pĕrgi bĕrshaikh ka-hulu sungai: ia-lah yang bĕrgĕlar Sultan Shaikh.

Kĕmudian dari itu, maka Sultan Mansur Shah-lah kĕrajaan di-dalam nĕgĕri Pahang, lalu ia kahwin dĕngan Putĕri Fatimah, anak Sultan Ala'u'd-din Riayat Shah yang kĕrajaan di-nĕgĕri Mĕlaka itu. Tĕtapi tiada baginda bĕranak. Hatta bĕbĕrapa lama-nya, maka Sultan Mansur Shah pun mangkat-lah di-bunoh oleh sĕgala hulubalang-nya.

---

[1] For *Saleh* reads *Subang.*

[2] Omits *pada.*

[3] Inserts *lalu mangkat-lah di-Acheh.*

Maka di-rajakan mĕreka itu Raja Jamal anak Sultan Ahmad Muhammad Shah yang tĕngah. Kĕmudian dari itu, maka Raja Jamal-lah kĕrajaan dalam nĕgĕri Pahang, bĕrgĕlar Sultan Abdu'l-Jamal Shah. Bĕbĕrapa lama-nya ia dalam takhta kĕrajaan, maka ia pun mangkat-lah: ia-lah yang bĕrgĕlar Marhum Ziarat.[1].

Kĕmudian Raja Mahmud-lah kĕrajaan, bĕrgĕlar Sultan Mahmud Shah. Kata yang ĕmpunya chĕrita, bahawa Raja Mahmud anak Sultan Mansur Shah yang di-Mĕlaka itu, ada bĕranak sa-orang pĕrĕmpuan tĕrlalu elok paras-nya bĕrnama Putĕri Olah. Maka Putĕri itu-lah di-kahwin Sultan Mahmud Shah bĕranak dua orang laki-laki, yang tua bĕrnama Raja Mudzafar dan yang muda bĕrnama Raja Zainal. Hatta bĕbĕrapa lama-nya, maka Sultan Mahmud Shah pun mangkat-lah; ia-lah yang bĕrgĕlar Marhum di-Hilir.

Kĕmudian dari itu, maka Raja Mudzafar Shah kĕrajaan: bĕbĕrapa lama-nya ia dalam takhta kĕrajaan, maka baginda pun mangkat-lah: ia-lah yang bĕrgĕlar Marhum di-Tĕngah.

Kĕmudian dari itu, maka Raja Zainal-lah kĕrajaan, bĕrgĕlar Sultan Zainal-abidin Shah; lalu baginda kahwin dĕngan Putĕri Dewi anak Sultan Mahmud Shah Marhum di-Kampar, bĕranak ĕmpat orang, dua orang laki-laki, dua orang pĕrĕmpuan. Maka yang laki-laki itu sa-orang bĕrnama Raja Mansur, kĕdua bĕrnama Raja Jamal, dan yang pĕrĕmpuan itu sa-orang bĕrnama Putĕri Khalijah, kĕdua bĕrnama Putĕri Bongsu. Sa-tĕlah itu, maka Sultan Zainal-abidin Shah pun kahwin pula dĕngan anak Tun Kamal anak Bĕndahara Sĕri Buana bĕranak sa-orang laki-laki bĕrnama Raja Kadir. Shahadan Sultan Zainal-abidin itu banyak bĕranak dĕngan gundek-nya, kira-kira dĕlapan-bĕlas orang, laki-laki dan pĕrĕmpuan. Hatta bĕbĕrapa lama-nya maka Sultan Zainal-abidin pun mangkat-lah; ia-lah yang bĕrgĕlar Marhum di-Bukit.

Kĕmudian dari itu, maka Raja Mansur Shah-lah kĕrajaan bĕrgĕlar Sultan Mansur Shah; lalu baginda kahwin dĕngan Putĕri Fatimah, anak Sultan Ala'u'd-din Shah Raja Ujong Tanah yang mangkat di-nĕgĕri Acheh itu. Bĕbĕrapa lama-nya, maka Sultan Mansur Shah pun bĕranak dĕngan Putĕri Fatimah itu dua orang, yang pĕrĕmpuan bĕrnama Putĕri Puteh timang-timangan-nya Putĕri Kĕchil Bĕsar: ia-lah yang sangat di-kaseh ayahanda-nya: dan yang sa-orang lagi itu laki-laki bĕrnama Raja Suboh. Sa-tĕlah itu, maka Sultan Mansur Shah pun kahwin pula dĕngan Putĕri Bakal anak Raja Tĕrĕngganu, bĕranak ĕmpat orang, dua orang laki-laki dan dua orang pĕrĕmpuan: maka yang laki-laki itu sa-orang bĕrnama Raja Jalal dan sa-orang bĕrnama Raja Jalil, dan yang pĕrĕmpuan itu sa-orang bĕrnama Putĕri Tĕngah dan yang sa-orang bĕrnama Putĕri Dewi. Maka Sultan Mansur Shah saudara-nya yang bĕrnama Kadir itu di-angkat-nya anak, tĕrlalu sangat di-kaseh-nya. Hatta bĕbĕrapa lama-nya, maka Sultan Mansur Shah pun shahid bĕrpĕrang dĕngan Jawa kafir: ia-lah yang bĕrgĕlar Marhum Shahid.

---

[1] For *Ziarat* reads *di-baroh.*

Kĕmudian dari itu, maka Raja Jamal-lah kĕrajaan bĕrgĕlar Sultan Abdu'l-Jamal Shah, lalu baginda bĕranak dĕngan gundek-nya dua orang pĕrĕmpuan, sa-orang bĕrnama Putĕri Siti. Kalakian maka Raja Biajid dan Raja Asip anak Sultan Khoja Ahmad itu pun datang dari nĕgĕri Siak ka-Pahang, maka di-kahwin Sultan Abdul-Jamal Shah Raja Asip itu dĕngan anak Sultan Mansur Shah yang bĕrnama Putĕri Puteh timang-timangan-nya Putĕri Kĕchil Bĕsar. Bĕbĕrapa lama-nya, maka Raja Asip pun bĕranak dĕngan Putĕri Kĕchil Bĕsar ĕnam orang, sa-orang laki-laki bĕrnama Raja Ahmad dan lima orang pĕrĕmpuan, sa-orang bĕrnama Putĕri Jida,[1] kĕdua bĕrnama Putĕri Mani Suri, kĕtiga bĕrnama Putĕri Bongkok, kĕampat bĕrnama Putĕri Minang, kĕlima bĕrnama Putĕri Bongsu Chĕndĕra Dewi. Hatta bĕbĕrapa lama-nya, maka Sultan Abdu'l-Jamal Shah pun mangkat tĕrbunoh.

Kĕmudian dari-pada itu, maka Raja Kadir-lah kĕrajaan bĕrgĕlar Sultan Abdulkadir[2] Ala'u'd-din[3] Shah. Maka baginda pun bĕranak tiga orang laki-laki, yang tua bĕrnama Sultan Abdulkadir Ala'u'd-din Shah, yang tĕngah bĕrnama Sultan[4]......, dan yang bongsu bĕrnama Sultan Ahmad Shah. Kĕmudian dari itu, maka Sultan Ahmad Shah-lah kĕrajaan hingga sa-tahun lama-nya: maka baginda pun turun dari atas takhta kĕrajaan, kĕrana baginda lagi kĕchil tiada di-dapat (mĕmĕgang) kĕrajaan, lagi pun saudara baginda yang tua lalu di-ganti-nya.

Kĕmudian dari itu, maka Sultan Abdul-Ghafar Mohaidin Shah-lah kĕrajaan, lalu baginda pun bĕranak dua-bĕlas orang dĕngan gundek-nya, tujoh orang pĕrĕmpuan lima orang laki-laki. Hatta bĕbĕrapa lama-nya, maka Sultan Ahmad Shah pun bĕsar-lah tĕrlalu sangat bĕrkaseh-kasehan dua bĕrsaudara. Maka anak Raja Asip yang bĕrnama Bongsu Chĕndĕra Dewi itu pun di-angkat Sultan Abdul-Ghafar Ala'u'd-din Shah akan anak-nya, tĕrlalu sangat di-kaseh baginda lalu di-kahwinkan Sultan Abdul-Ghafar Ala'u'd-din Shah putĕri itu dĕngan Sultan Ahmad Shah. Hatta bĕbĕrapa lama-nya, Sultan Ahmad Shah pun bĕranak dĕngan Putĕri Bongsu Chĕndĕra Dewi itu sa-orang laki-laki bĕrnama Paduka Sĕri Sultan Iskandar thani Ala'u'd-din Mughayat Shah johan bĕrdolat dzillu-'llahi fi'l-alami yang mĕnjunjong kurnia Allah subhanahu taala kĕrajaan di-nĕgĕri Acheh daru's-salam.

Kata yang ĕmpunya chĕrita ini, bahawa nĕgĕri Siak itu dahulu kala nĕgĕri bĕsar dan yang pĕrtama kĕrajaan di-dalam nĕgĕri itu Maharaja Pĕrmaisura; raja itu-lah dari-pada salasilah Sang Sapurba yang turun di-Bukit Si-guntang. Maka di-titahkan orang mĕnyĕrang nĕgĕri Siak kĕrana raja itu tiada mahu taalok ka-pada-nya. Hatta, maka nĕgĕri Siak itu pun datang[1] orang-lah lalu di-alahkan mĕreka itu dan Maharaja Pĕrmaisura itu pun maut di-dalam pĕpĕrangan-nya. Maka anak Raja Pĕrmaisura itu bĕrnama Mĕgat Kĕrda itu pun tĕrtawan-lah lalu di-bawa mĕreka itu kĕmbali ka-Mĕlaka. Hatta, maka Mĕgat Kĕrda itu pun di-ambil baginda Sultan Mansur Shah akan mĕnantu. Sa-tĕlah itu, maka di-rajakan baginda ka-nĕgĕri Siak bĕrgĕlar Sultan Ibrahim: bĕbĕrapa lama-nya maka Sultan Ibrahim itu pun bĕranak sa-orang laki-laki bĕrnama Raja Abdul dĕngan anak Sultan Mansur Shah Mĕlaka. Hatta Sultan Mansur Shah pun mangkat.

---

[1] For *Jida* reads *Chindĕra.*
[2] Reads *Ghafar* for *Kadir.*
[3] Reads *Mohaidin* for *Ala'u'd-din.*
[4] Inserts *Yamir.*

Kĕmudian dari itu, maka Sultan Ala'u'd-din Riayat Shah-lah kĕrajaan di-nĕgĕri Mĕlaka. Raja Abdul anak Sultan Ibrahim itu pun di-kahwinkan Sultan Ala'u'd-din Riayat Shah dĕngan anak baginda yang bĕrnama Putĕri Hitam; bĕbĕrapa lama-nya, maka Raja Abdul pun bĕranak dĕngan Putĕri Hitam itu tiga orang laki-laki; yang tua bĕrnama Sultan Khoja Ahmad dan yang tĕngah bĕrnama Raja Biajid dan yang bongsu bĕrnama Raja Mudzafar, Hatta bĕbĕrapa lama-nya, maka Sultan Ala'u'd-din Riayat Shah pun mangkat.

Kĕmudian dari itu, maka Sultan Mahmud Shah-lah kĕrajaan di-nĕgĕri Mĕlaka. Maka Sultan Khoja Ahmad anak Raja Abdul itu pun di-kahwinkan Sultan Mahmud Shah dĕngan anak baginda Putĕri Mah, bonda-nya anak Raja Kĕlantan yang bĕrnama Putĕri Onang Kĕning. Hatta maka Sultan Khoja Ahmad pun bĕranak dĕngan Putĕri Mah itu tujoh orang, ĕmpat orang laki-laki tiga orang pĕrĕmpuan. Maka yang laki-laki itu pĕrtama Raja Jamal, kĕdua Raja Biajid, kĕtiga Raja Asip, kĕampat Raja Dollah, dan yang pĕrĕmpuan itu pĕrtama Putĕri Burut, kĕdua Putĕri Puteh, kĕtiga Putĕri Dewi. Sa-tĕlah itu, maka Raja Asip anak Sultan Khoja Ahmad itu pun pĕrgi ka-Pahang lalu baginda kahwin dĕngan Putĕri Puteh timang-timangan Putĕri Kĕchil Bĕsar, anak Sultan Mansur Shah Marhum Shahid yang kĕrajaan nĕgĕri Pahang. Hatta bĕbĕrapa lama-nya, maka Raja Asip pun bĕranak dĕngan Putĕri Kĕchil Puteh ĕnam orang, sa-orang laki-laki bĕrnama Raja Ahmad dan lima orang pĕrĕmpuan, pĕrtama Putĕri Chĕndĕra Dewi, kĕdua Putĕri Mani Suri, kĕtiga Putĕri Bongkok, kĕampat Putĕri Minang, kĕlima Putĕri Bongsu Chĕndĕra Dewi. Shahadan Putĕri Bongsu Chĕndĕra Dewi itu-lah bĕranakkan Paduka Sĕri Sultan Iskandar thani Ala'u'd-din Mughayat Shah johan bĕrdolat dzillullahi fi-l-alami, yang mĕnjunjong kurnia Allah subhanahu taala di-nĕgĕri Acheh daru's-salam. Insha'Allah taala lagi tĕrsĕbut sĕgala hikayat kĕrajaan baginda pada fasal tarikh sĕgala raja-raja yang kĕrajaan di-nĕgĕri Acheh daru'salam.

---

[1] The other MS. corrects thus:—*di-datangi.*

NOTES ON DIPTEROCARPS.

No. 4. On the Embryo, Seedling and Position of the Flowers in various Species.

By I. H. Burkill.

This note deals, with the shape of the mature embryo, and with the characters of the seedling in a small number of species of the order Dipterocarpaceae: it deals also in a lesser measure with the position which the flowers assume when open. The observations were made and are recorded because it is believed that by a full knowledge of the morphology of the young plant, light will be cast upon the tangle which the genera of the order now present. In a lesser measure the position of the flower may possibly assist; and at any rate information concerning it is worth collecting.

Most of the facts in this note were got together by visits to Penang in the months of July, October and December, 1918: such as were not, are enumerated in the footnote[*] below. It happened that the year, 1918, was unusually favourable to the Dipterocarps in Penang, where almost every local species flowered: and there Mr. Mohamed Haniff, of the Waterfall Gardens, observed and collected for me between my visits. To him for very much assistance, I tender my best thanks. I tender my best thanks, also, to Dr. F. W. Foxworthy, Mr. W. E. Kinsey and other Forest Officers for supplies of fresh seed from several parts of the Peninsula, which seed was put into cultivation in the Botanic Gardens, Singapore. No cultivation, however, returned the equivalent of days spent in the forests when the seeds were falling and germinating under natural conditions; for the seedling is so exacting in its demands that without experimenting on a very large scale cultivation often fails to supply adequate material.

The forest is undoubtedly the place in which to study the Dipterocarps. The earlier investigators were not able to realise that fully, not even collectively, and have left much to be done. The first of the workers worked, perforce, in European institutions remote from tropical nature, with material preserved by drying and chiefly collected by others. They constructed such classifi-

---

The following list gives the names of the plants which were not studied in Penang, but in Singapore:

Shorea gratissima Dyer, *S. leprosula* Miq. *Balanocarpus Zeilanjbus* Thw., and *Pachynocarpus Wallichii*, King species wild or long established in the Botanic Gardens, Singapore. *Hopea Mengarawan*, Miq., wild in Singapore, island. *Dipterocarpus cornutus*, and Dyer, *Hopea Curtisii*, King, seeds grown from Penang *Dipterocarpus crinitus*, Dyer, *D. grandiflorus*, Blanco, *D. Kerrii*, King and *Dryobalanops aromatica*, Gaertn.f., seeds grown from Negri Sembilan,

Dipterocarpus Scorteohinii, King, and *D. ep.* seeds grown from Selangor.,

Jour. Straits Branch R. A. Soc., No. 81, 1920.

cations as they could with what they had. Bentham for instance in Bentham and Hooker's *Genera Plantarum,* i, (1862) p. 190, after saying that the calyx in fruit gives the best key, presented an alternative on the structure of the flower: and Alphonse de Candolle in his *Prodromus,* xvi, part 2, (1868) p. 604 took a different line in classifying by the number of stamens. Heim, much later (*Recherches sur les Dipterocarpacées, Introduction à la Monographie générale de la Famille,* Paris, 1892, p. 14), when essaying to throw light upon the order by means of the microscopic structure, wrote "the shape of the embryo is very variable, according to the genera,—and this shape, wrongly neglected by writers, may furnish generic characters of the highest importance:" But Brandis in the *Journal of the Linnean Society, Botany,* xxxi, 1895, p. 15, refused to allow importance to it, stating that the variability is great even among species otherwise closely allied. I am with Heim in thinking that there is a promise of utility in the study of the embryo.

Brandis' effort is the last that has been made at classifying comprehensively the Dipterocarps of the World. He had long been an Indian Forest Officer: but he did it as herbarium work, his field knowledge of the order remaining limited to the relatively small number of species found in India. Few will regard the result as satisfying our need.

Upon the botanists who live where Dipterocarps grow, now rests the duty of collecting such details regarding them as the Herbarium botanists have not had in full measure, and among the details, as Heim has pointed out, are the structure of the embryo and appearance of the seedling. Trimen, indeed, made some observations on the structure of the embryo of the Ceylon Dipterocarps (*Handbook of the Flora of Ceylon,* i, 1893, pp. 112-138 and his plates 13-15), but not comparatively between the species; and Pierre in his beautiful *Flore Forestière de la Cochin-Chine,* Paris, 1888, plates 212-259, figured many embryos, but unfortunately nearly always in a slightly immature state. I find consequently in his plates indications rather than facts, and trust that some day soon there may appear a botanist in Indo-China who will delineate the seedlings and mature embryos of the Dipterocarps which make so large a part of the forests there.

Six ovules occupy in pairs the three chambers of the ovary of any one of the Dipterocarps. Out of the six except in cases which are rare, and of which a few have been recorded, one only develops into a seed. Brandis who in 1895 drew together the observations of earlier writers on the order, was able to cite but three species in which twin seeds had been found, namely *Dipterocarpus condorensis,* Pierre, *Dipterocarpus alatus,* Roxb., and *Dryobalanops aromatica,* Gaertn. f. (Engler's *Pflanzenfamilien,* iii, part 6, p. 251). To these Mr. B. Sen-Gupta (*Indian Forester,* xliv, 1918, p. 372) adds *Shorea robusta,* Roxb., with the remark that twin seeds are not infrequent.

I have now to add several more; and it seems as if any few thousand seeds of a species may be expected to give an instance or two. The species which I have to add are:—*Dipterocarpus cornutus,* Dyer, *Dipterocarpus alatus* of Penang (? Roxb.), *Anisoptera Curtisii,* King, *Shorea macroptera,* Dyer, *Shorea pauciflora,* Dyer, *Shorea gratissima,* Dyer, *Shorea parvifolia,* Dyer, *Retinodendron pallidum,* King, and *Pachynocarpus Wallichii,* King.

When two seeds are formed in the limited space of the one ovary, they interfere with each other in a way which will be described.

The single normal seed is produced with its radicle towards the apex of the ovary cavity, and with one cotyledon against the placenta. The placenta with the sterile loculi behind it persists, in most genera distinctly, as a chord to the curve of the ovary wall, while the embryo in growth laps round it. Thus the placentar cotyledon becomes doubled on itself backward over the placenta, and acquires a groove which, because the placenta remains firmly attached to the middle of the base of the ovary, in most genera leads to the embryo appearing with a seam down one side ending in an umbilicus. The other cotyledon becomes doubled ventrally onto the placentar cotyledon, and may shut the placentar cotyledon from the apex of the fruit-chamber. The embryo consequently acquires an obliquity which varies in the different species studied, and will be described with figures to indicate its degree.

But occasionally the embryo comes through its development without folding itself over the placenta. Instances have been found in the genera *Dipterocarpus, Shorea* and *Retinodendron,* which will be described. In them there is some indication of a spiral growth which throws the cotyledons into an S. The causes of it have not been ascertained; but *Dipterocarpus* where the placenta is least in evidence in the mature fruit, is the genus yielding instances most readily.

DIPTEROCARPUS.

The flower of *Dipterocarpus* usually, it seems, faces earthwards; and after flowering is done, the growing fruit maintains the position: it is as in figures 1 and 2.

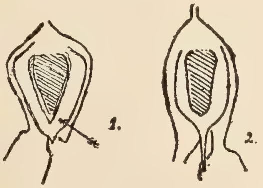
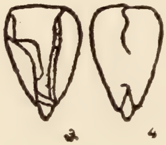


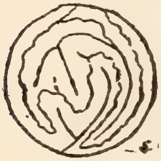
Figure 1. fruit of *Dipterocarpus alatus,* and figure 2, fruit of *D. fagineus*; both in vertical section with the embryo shaded. The arrow on figure 1, indicates the position at which a very common weevil emerges when its grub has completed the devouring of the seed and has passed through a period of pupation.

When the fruit is ripe it falls as a shuttle-cock to the floor of the forest and there without delay germinates. The embryo, at fruit-fall, and if normal, is as in figures 3 and 4, the placentar cotyledon being enwrapped more or less completely by the other, the radicle extruding slightly from the basal lobes that the cotyledons possess, or just covered by them.

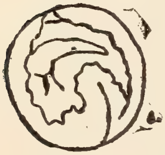


Figures 3, an embryo of *Dipterocarpus cornutus* from the placentar side and 4, from the back. In figure 3 the edges of both the cotyledons are seen; in figure 4 a fold is seen in the upper part of the outer cotyledon. Nat. size.

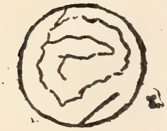
The way in which the placentar cotyledon in enwrapped, will be adequately realised from the series of sections, figures 5 to



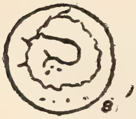
Section of embryo of *Dipterocarpus cornutus* near the a pices of the cotyledons. The placentar cotyledon only comes to the surface at this level at the side which is above in the figure.



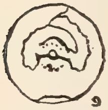
Section lower. The placentar cotyledon just comes to the surface.



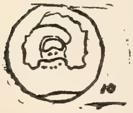
Section lower. The placentar cotyledon is quite enclosed.



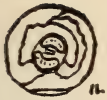
Section lower, with the same appearance. The bundles of the petioles of the cotyledons have not spread into the blades at this level.



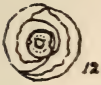
Section lower, at the junction thepetiole of the placentar cotyledon with its blade.



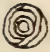
Neighbouring section to the last, the petiole free.


11.

Section through the petioles and plumule with the lobes of the cotyledon round them, those of the placentar cotyledon enclosed.


12.

Section lower, one lobe of the placentar cotyledon reaching the surface.


13.

Section through radicle with the lobes of the cotyledons round it, one quite enclosed.

13, but they represent an extreme; for it is not usual for the placentar cotyledon to be so fully enveloped by the other. Figure 14 is of a commoner condition. In it the placentar cotyledon (at the level of the section, which is at one third from the apices of the cotyledons) comes to the surface over about one fifth of the circumference. Figure 15, which is of a different species, shows it on the surface over one-third of the circumference.

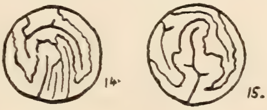
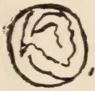
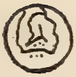


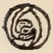
Figure 14, section of the embryo of *Dipterocarpus cornutus* showing the placentar cotyledon at the surface over one-fifth of the circumference, and the outer cotyledon with three folds at the back; figure 15, section of the embryo of *Dipterocarpus alatus*, of Penang with the placentar cotyledon at the surface over one-third of the circumference.

Figures 16, 17 and 18 represent sections through the embryo of a new *Dipterocarpus* from Selangor, with rather small fruits. The placentar cotyledon is folded inside as described above. But figures 19, 20 and 21 show in the same species, the different folding mentioned above as resulting in the cotyledons being curved into an S., where neither is inside the other.

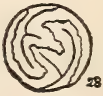
S.-folding was observed in *Dipterocarpus fagineus*, Vesque, *D. alatus* of Penang, *D. cornutus*, Dyer, and this new species.

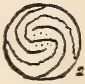

16.

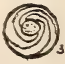

17.


18

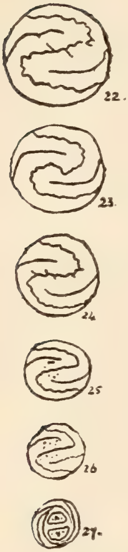
Figures 16—21, section through two embryos of *Dipterocarpus*, n.sp. Figs. 19—21, showing on the right the usual folding, Figs. 16 – 18, on the left a folding into the letter S.


28.

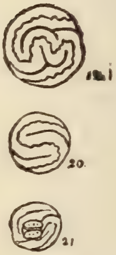

29.


30.

The embryo of *Dipterocarpus fagineus* was found folded as in figures 22, 23, 24, 25, 26, and 27, and the embryo of *Dipterocarpus cornutus* as in figures 28, 29 and 30, a very similar arrangement to that seen in figures 19, 20 and 21.



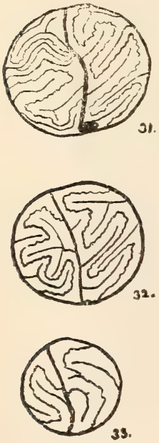
Figures 22-27, sections through an embryo of *Dipterocarpus fagineus*;



Figures 28-30, ditto, through an embyo of *Dipterocarpus cornutus*.

It seems worthy of notice that in the folding of the cotyledons in the largest fruited of these three an extra curve is called into being (figure 28) indicated only just in the smaller embryo of *Dipterocarpus fagineus* (figure 22).

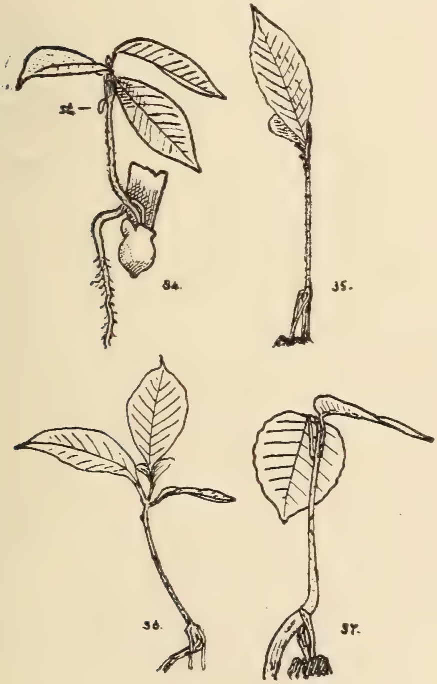
Twin seeds in *Dipterocarpus cornutus* exhibited an S-folding. Did it result from the intensified and abnormal pressure from competition within the ovary? It became complicated by extra folds.



Figures 31, 32, and 33, sections through twin seeds in *Dipterocarpus cornutus* in three levels.

The apices of the cotyledons in the genus *Dipterocarpus* not uncommonly abut against an small lump of resin which acts as ballast when the fruits fall.

After reaching the ground the radicle is extruded from the apex of the fruit without any well defined cracks spreading down the fruit wall; it is thrust out by the elongation of the petioles of the cotyledons as figures 34, 35, 36 and 37 indicate, and growing, exhausts the cotyledons of the nutriment stored in them, without the development in them of any visible change. They do not part in any way nor develop chlorophyll. Why has the genus *Dipterocarpus* thin cotyledons, so much broader and more leaf-like than is usual in the order, without any function attached that belongs to the thinness of leaves? Their elaborate folding is a consequence of their size. Their surfaces which are morphologically upper surfaces are very uneven. Why? They fit so tightly together, that slipping over each other would seem impossible; but the morphologically lower surfaces are smooth, as the drawings indicate, and obviously one part slides over another in growth.



Figures 34-37, Seedlings of:—

(34) *Dipterocarpus Scortechinii*

(35) *D. crinitus.*

(36) *D. Kerrii.* and

(37) *D. grandiflorus*

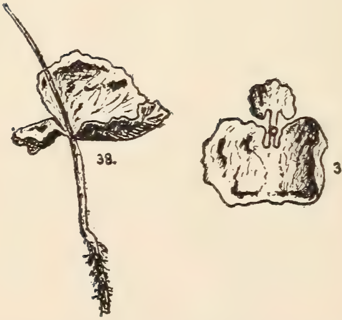
All about nat ½size.

Dipterocarpus produces after the cotyledons first a pair, and then alternating leaves, the first of the alternating leaves is not crowded onto the pair, at any rate not in *D. Scortechinii,* King, *D. fagineus,* Vesque, *D. cornutus,* Dyer, *D. grandiflorus,* Blanco, *D. alatus* of Penang, *D. crinitus,* Dyer, nor *D. Kerrii,* King.

DRYOBALANOPS.

The great disparity between the two cotyledons of *Dryobalanops aromatica* has been known for over a century; a tree of such economic importance naturally attracted the attention of early voyagers in the Malay region, and Gaertner about a century and a quarter ago was able to examine its seeds, and to figure them in his *De fructibus*, 1788-91. Then again Correa de Serra in the *Mémoires du Muséum d'Histoire Naturelle*, i, 1815, p. 159 and Colebrooke in the *Asiatick Researches*, iii, 1816, figured it; later others. But apparently the actual germination has not been described, though the dehiscence of the fruit has been recorded as along three defined lines, and abundantly commented on.

Figure 38 is of the young seedling seen from the side, and figure 39 of its cotyledons seen from above. The larger of these cotyledons is slightly cup-shaped when expanded, the other slightly humped; and they come to stand horizontally. Their upper surface is as rough as that of a *Dipterocarpus*, but their cells are full of chlorophyll.



Figures 38 and 39, the seedling of *Dryobalanops aromatica* from the side and from above, showing how the cotyledons expand, how unequal they are, and how uneven is their surface ; nat size.

Figure 40 is a section down the germinating fruit showing the radicle extruding and curving earthwards. It shows also the extraordinary invagination of the placenta, of which the genesis is unstudied, and the function if any, quite obscure. This invagination is like an apron in shape; round its edges at either side curves the dorsal cotyledon embracing with it the inner or placentar cotyledon.

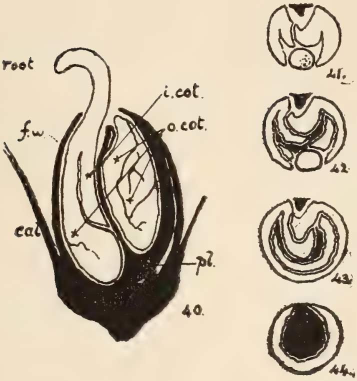


Figure 42, the germinating fruit of *Dryobalanops aromatica* in vertica-median section, showing cal. = a calyx lobe: f. w. = fruit wall: pl. = plal centa: i. cot. inner or placentar cotyledon: o. cot. = outer cotylepon, cut in three places. Nat. size. Figures 41, 42, 43 and 44, sections through the embrio at various levels showing how the outer cotyledon enwraps the placenta cotyledon and the process of the placenta.

The embryo soon frees itself from the fruit wall and seed-coats, uncurling as in figure 45.

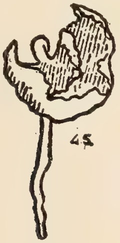


Figure 45, the seedling of *Dryobalanops aromatica* showing the outer cotyledon half expanded, ½ nat. size.

The lesser or placentar cotyledon becomes as horizontal as the larger, and a rather long wiry stem grows upward bearing first a pair of leaves and then, closely approximated to this pair, another pair before alternate leaves succeed, as shown in figure 46. If the reader will turn back to figures 34-37, he will at once see how dissimilar is this plantlet to the seedlings examined of the genus *Dipterocarpus.*

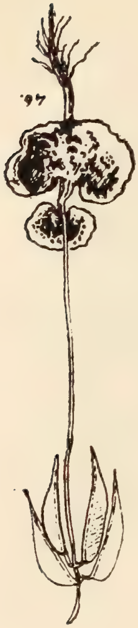


Figure 46, a seedling of *Dryobalanops aromatica* with it first few leaves, ½ nat. size.

Hopea, section Dryobalanoides.

Figure 47 is the fruit of the *Hopea* common on Penang island, which will be called here *Hopea micrantha,* Hook. f.; and figure 48 is its embryo seen with the radicle away from the observer. Figure 49 is of the wiry seedling which arises from it, and figures 50, 51, 52 and 53 are of its two cotyledons from both sides.

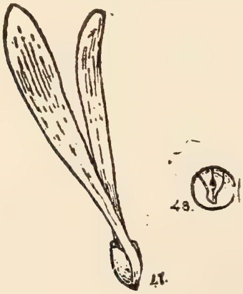


Figure 47, a fruit of *Hopea micrantha*, nat. size; and figure 48, its embryo seen with the radicle away from the observer.

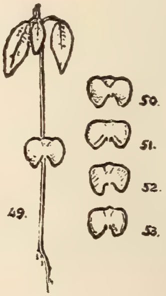


Figure 49, the wiry seedling of *Hopea micrantha ;* figure 50 the outter cotyledon from the outside, figure 51, from the inside ; figure 52, the placentar cotyledon from the side in contact with theouter cotyledon; fig. 53, from the placentar side ; ½ nat. size.

As figure 49 shows, the seedling bears a pair of leaves, followed by closely approximated alternate leaves, much after the manner of *Dryobalanops aromatica,* only that they are distinctly alternate. In its wiriness it is also similar.

The seedling develops a small amount of red pigment.

Hopea mengarawan, Miq. from Singapore island, but little distinct from the last, is represented in figure 54, and a section through its embryo in figure 55. This section shows that the cotyledons are rather thin and that the outer goes far towards enveloping the inner. The name " H. mengarawan " is used as Mr. Ridley has used it: Miquel's type has not been compared.

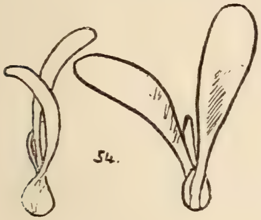


Figure 54, a fruit of *Hopea mengarawan.* ½ nat. size.

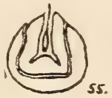


Figure 55, the embryo of *Hopea mengarawan* in section.

The reader will observe that the similarity of the Hopeas of the section *Dryobalanoides* to the genus *Dryobalanops* as seen in the mature foliage, is repeated in certain characters of the seedling.

BALANOCARPUS (excluding RICHETIA).

Balanocarpus Curtisii, King, will be described next. It is a common small tree of some parts of Penang island.

As in the genus *Dipterocarpus,* the flowers face earthwards; but they are small, and illustrate the statement that greater size and downward direction in anthesis do not accompany each other through the order. They are claret in colour, with petals but little twisted.

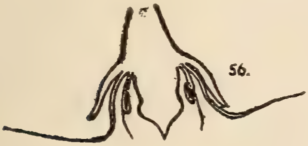


Figure 56, a flower of *Balanocarpus Curtisii* in vertical section, × 4.

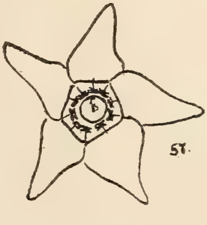


Figure 57, a flower seen from below, × 4.

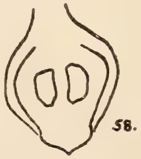
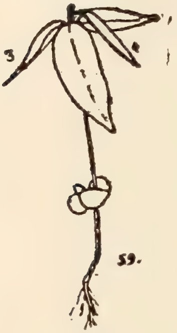


Figure 58, a young fruit in vertical section, × 4.

From the nearly globose fruit a wiry seedling arises, with a pair of leaves and with alternate leaves following them approximated to the pair, the first of the approximated alternate leaves being almost in a false whorl with the pair.

The cotyledons are very like those of *Hopea micrantha,*—rather thin and nearly vertical in position; but the margin of the outer has a rather characteristic rim surrounding plano-convex areas. Red pigment is present in them and in the leaves which follow them.



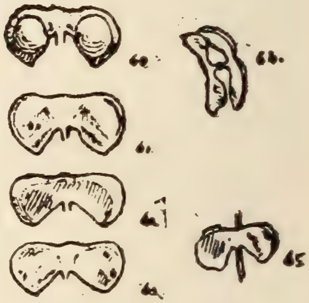


Figure 59, the seedling of *Balanocarpus Curtisii*, showing the approximation of the third (3) and fourth (4) leaves to the paired leaves, ½ nat. size.

Figure 60, the outer cotyledon of *Balanocarpus Curtisii* seen from the outside; figure 61, from the inside. figure 62, the placentar cotyledon seen from the side against the outer cotyledon, figure 63, from the other side nat., size; figures 64 and 65, the position taken by the cotyledons with regard to each other.

Balanocarpus zeylanicus, Trim., a species cultivated in the Botanic Gardens, Singapore, has flowers directed earthwards, from ascending branchlets as in figure 66. The flowers are as in figures 67 and 68, with the petals distinctly twisted. The seedling produced is as in figure 69, its cotyledons as in figures 70 and 71. In section the embryo is as in figures 72, 73 and 74.

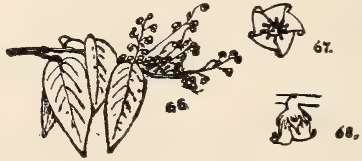


Figure 66, a branch of *Balanocarpus zeylanicus* showing the ascending branchlets, ½ nat. size ; figure 67, the flower in vertical section, × 2 ; figure 68 the flower in face view, × 2.

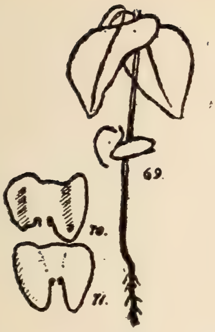
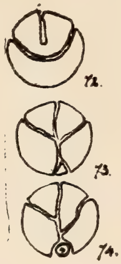


Figure 69, the seedling of *Balanocarpus zeylanicus*, ½ nat. size; figure 70, its placentar cotyldon seen from the side away from the outer cotyledon ; figure 71, the outer cotyledon seen from the outside, nat. size.



Figures 72, section of the embryo through the upper part of the cotyledons; figure 73, section through the plumule ; and figure 74, section through the radicle.

Trimen (*Handbook to the Flora of Ceylon*, i, 1893, p. 130), doubted if he had classified it rightly as a *Balanocarpus.*

VATICA.

With *Vatica nitens* another type of Dipterocarp embryo is reached. In it the placentar cotyledon is rolled rather then folded, and the outer cotyledon embraces it (vide figure 75). The placentar cotyledon is horned as figures 76, 79 and 80 show. The revolution of the placentar cotyledon suggests *Dipterocarpus.*

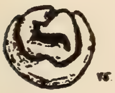


Figure 75, the embryo of *Vatica nitens* with the radicle away from the observer.

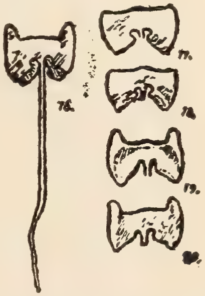


Figure 76, the young seedling of *Vatica nitens* with the placentar cotyledon towards the observer; figure 77, the outer cotyledon from the outside; figure 78, from the inside; figure 79, the placentar cotyledon from the side toward the outer cotyledon and figure 80, from the other side, ½ nat. size.

Red pigment is plentifully present in the cotyledons. Several seedlings of this species were found in which the cotyledons had been bent into an S.

RETINODENDRON.

The genus *Retinodendron* has been examined in *R. pallidum;* and figure 81 represents a germinating fruit which had been disturbed in the course of its germination so that the direction of the radicle had been changed. That change is of course immaterial to the structure under examination. Figure 82 is an embryo viewed with the radicle away from the observer. The placentar cotyledon is folded rather than revolute. When the seedling develops, the placentar cotyledon is seen to possess one marked horn, and one scarcely defined. So far these horns have been found in *Vatica* and *Retinodendron* alone.

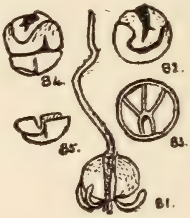


Figure 81, the fruit of *Retinodendron pallidum* germinating; ½ nat. size;fig. 82, the embryo seen with the radicle away from the observer ; fig., 83, a section of the embryo through the lobes of the cotyledons and the radicle ; figure 84, twin embryos seen with the radicles away from the observer ; figure 85, the smaller of these.

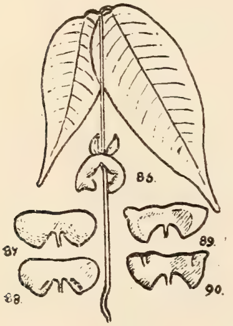


Figure 86, seedling of *Retinodendron pallidum* ; figure 87, its outer cotyledon from outside; figure 88, from inside ; figure 89, the inner cotyledon from the side towards the outer cotyledon ; figure 90, from the other side; all ½ nat. size.

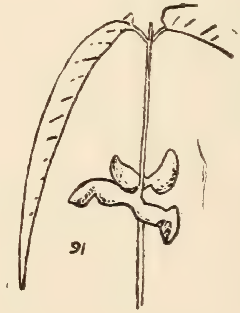


Figure 91, Seedling of *Retinodendron pallidum* showing the ultimate position of the cotyledons:rather more than ½ nat. size.

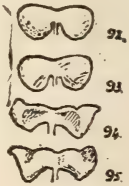


Figure 92. the outter cotyledon of *Retinodendron pallidum* from outside; figure 93, from inside; figure 94, the placentar cotyledon from the side towards the outer cotyledon; figure 95, from the other side. ½ nat. size.

Retinodendron cotyledons an claret in colour. Figures 84 and 85 present a case of twin seeds. Apparently they arose from the ovules of one loculus for the placentar cotyledon of the seed represented above is turned away from the seed represented below; this cotyledon is folded normally; but under the unusual pressure the outer cotyledon has taken on an S-curvature such as has been recorded for the genus *Dipterocarpus*. The cotyledons of the lesser seed are packed in an X-form each partly above and partly below. The better to show this they have been drawn in figure 85 slightly apart. Figure 96 shows the cotyledons of another abnormal seed wherein there had been a similar packing of the lobes: two such cases were observed.

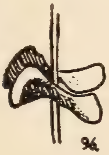


Figure 96, cotyledons of an abnormal seedling of *Retinodendron pallidum* in which each had been packed partly above and partly below the other, ½ nat. size.

ANISOPTERA.

The embryo and seedling of *Anisoptera costata* were described in this Journal No. 75, 1917, pp. 43-48. The observations here to be recorded were made upon another species, *A. Curtisii,* King, frequent in Penang island. Figure 97 is its embryo seen with the radicle away from the observer. Figures 98, 99 and 100 are successive stages in its germination. Figure 101 is a seedling with its false whorl of four leaves. These four leaves obviously represent a pair with two others drawn into a whorl with them: the condition is the limit of approximation of the leaves which follow the pair as in *Dryobalanops aromatica* and the Hopeas of the section Dryobalanoides. But so thoroughly have these following leaves been incorporated into a whorl with the pair that they are not recognisable constantly by size and one of them quite commonly exceeds in its length one of the leaves of the pair. To this state I called attention in describing the seedling of *Anisoptera costata*. without then having the key to the origin as given by the examination of the germination of *Dryobalanops* and *Hopea.*

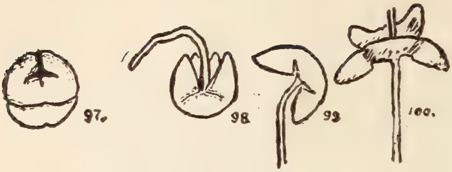


Figure 97, the embryo of *Anisoptera Curtisii* with the radicle away from the observer ; figures 98, 99 and 100, successive stages in the germination of this embryo. Nat. size.

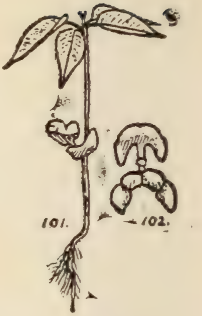


Figure 101, the seedling of *Anisoptera Curtisii* showing its false whorl of four leaves ; nat. size ; figure 102, the cotyledons obliquely from above.

On seedlings of *Anisoptera Curtisii* I have made the following measurements.

Measurements in millimetres of the lengths of the leaves of the false whorl in seedlings of Anisoptera Curtisii, *the leaves in succession round the axis clockwise.*

Series A. Larger seedlings, where unilateral growth was evident.

81	83	74	74
53	52	50	51
54	55	50	52
63	60	59	60
74	72	63	70
48	56	44	45

Series B. Smaller plants with evident unilateral growth.

31	30	29	27
30	30	29	29
29	30	29	29
34	32	32	32
34	31	26	28

Series C. Where the first pair (the lower line of each pair of lines) was more or less distinguishable from the following leaves.

	79		25
86		85	
	60		61
69		61	
	57		60
64		61	
	61		59
65		64	

	58		52
60		60	
	51		52
59		55	
	50		40
52		50	

In figure 97 the reader well observe that the outer cotyledon does not embrace the placentar cotyledon at all. The genesis of the ridges of the placentar cotyledon will be observed also, the grooves which separate them being creases arising in the curling of the thick cotyledon. The outer cotyledon through life remains the smaller (vide figure 102), and its petiole is about 1 mm. shorter.

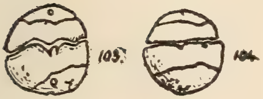


Figure 103 and 104, the embryos of two fruits with twin seeds ; the placentar cotyledon is the inner in both cases and is not curved. The ovules which gave rise to the seeds were of different loculi.

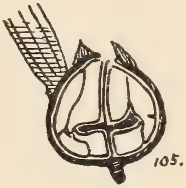


Figure 105, a vertical section through a fruit of *Anisoptera Curtisii* with twin seeds in separate loculi, with the placenta between them and showing its curious process into the seeds, nat. size.

In *Anisoptera Curtisii* I found twin seeds to be frequent; figures 103, 104 and 105 illustrate them. When twins were present they were as far as seen in different loculi. Then the placentar cotyledon would be unfolded as the drawings show. Into it a process of placentar tissue runs, which gelatinises at the maturity of the seed, and seems to be homologous with the apron like process described above as found in *Dryobalanops*.

The seedlings of *Anisoptera costata* and *A. Curtisii* do not develop in their tissues red pigment.

BALANOCARPUS section RICHETIA.

Balanocarpus penangianus, King, is a very common tree on the hills of the Island of Penang; and in 1918 it fruited very freely. The fruit is as drawn in figure 106. Its radicle commences to protrude before any distinct cracks spread down the fruit wall. Figure 110 is the embryo, seen with the radicle remote from the observer, and figures 107, 108 and 109 are sections through it at different levels.

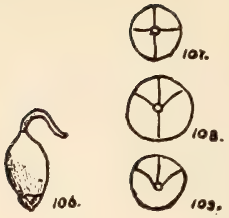


Figure 106, fruit of *Balanocarpus penangianus*, germinating, ½ nat. size; figure 107, section through the embryo showing the radicle central between the equal lobes of the cotyledons; figure 108, section at the middle showing the lobes of the placentar cotyledon at this level rather smaller than those of the outer cotyledon; figure 109, section through the plumule showing the placentar cotyledon here the smaller.

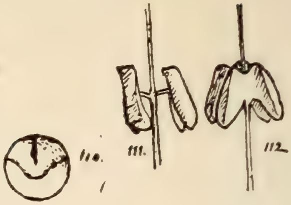


Figure 110, embryo of *Balanocarpus penangianus* seen with the radicle remote from the observer; figures 111, and 112, the cotyledons; in figure 112, the placentar cotyledon is toward the observer, nat. size.

The cotyledons are of a deep red, nearly equal, and stand parallel on short petioles as drawn (figure 111). A pair of bright green leaves follow them having remarkably long acuminations: so long are these acuminations that when the leaf is just expanding they make one-half of its length, and at maturity one-third. The stem is wiry.

No Malayan Dipterocarp has been observed with a more easily recognised seedling than has *Balanocarpus penangianus*.

HOPEA, section EUHOPEA.

Hopea Curtisii, King, has a seedling in many respects like that of some species in the genus *Shorea*. The fruit is globose as figure 113 indicates. The naked embryo seen with the radicle remote from the observer is as in figure 114, or germinating with the placentar cotyledon towards the observer as in figure 115.

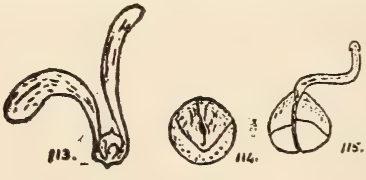


Figure 113, A fruit of *Hopea Curtisii*, ⅓ Nat. size; figure 114, an embryo with the radicle away from the observer, and figure 115, germinating, with the placentar cotyledon, towards the observer, × 1.

The outer cotyledon is considerably larger than the placentar cotyledon and alone reaches the apex of the ovary; figures 117, 118 119 and 120 show by how much it is the larger. The cotyledons are of an orange-claret colour. They become horizontal in the seedling: and a pair of leaves follow them.

Twice cotyledons, folded into an S, were found.

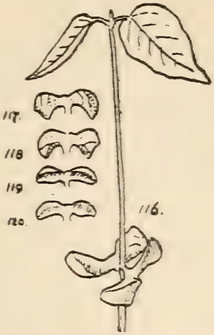


Figure 116, a seedling of *Hopea Curtisii*, ⅔ nat. size ; figure 117, its outer cotyledon from outside ; figure 118, from inside ; figure 119, the placentar cotyledon from the side towards the outer cotyledon : and figure 120, from the other side, all ½ nat. size.

The attention of the reader may be called to faint grooves on the surface of the cotyledons, which are due to raised lines in the fruit wall. The splitting of the fruit wall as the seed germinates is between these raised lines, or may rarely cross one or two of them, not being along any definite line of dehiscence, but apparently along any weak line upon which the cotyledons in their effort to flatten themselves press most. Therefore that the fruit of such Dipterocarps as *Vatica*, should usually free its seedling by splits along three lines is not to be assumed as connected with the trilocular nature of the ovary in the order, unless and until microscopic examination of successive stages in the development of the fruit has shown it to be so. *Retinodendron* frequently splits into two only; and in *Shorea sericea*, two and four splittings were found not infrequently.

SHOREA.

Shorea in several species exhibits grooves on the embryo such as those to which attention has just been called under *Hopea Curtisii*. They are particularly obvious in *Shorea costata*, King.

Figure 121 is its embryo with the radicle remote from the observer, and 122 is the same from the side with the placentar cotyledon towards the observer. As in *Hopea Curtisii* the outer cotyledon is the larger and shuts the placentar cotyledon out from the apex of the ovary.

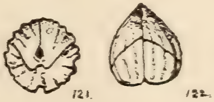


Figure 121, the embryo of *Shorea costata* with the radicle away from the observe; figure 122, the same with the placentar cotyledon towards the observe, ½ nat, size.

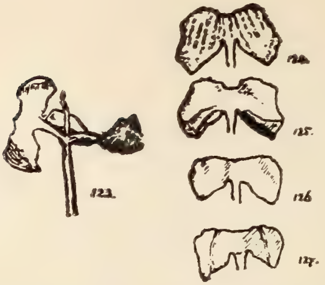
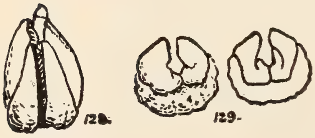


Figure 123, young seedling of *Shorea castata*; and figure 124, its outer cotyledon from outside, figure 125, from inside; figure 126, the placentar cotyledon from the side towards the outer cotyledon; and figure 126, the same from the other side, ½ nat. size.

Shorea materialis, Ridley, has an embryo with the cotyledons similarly proportioned towards each other, but my material was not quite mature, the embryos lying in a little unabsorbed albumen, so that their surface was not pressing upon the ovary wall.

The embryo of *Shorea gratissima,* Dyer, differs in several points; first of all it is longer than those of *Shorea costata* and *S. materialis;* then it is threaded through by a particularly large placenta; and thirdly the placentar cotyledon exhibits a peculiar folding along it. The placentar cotyledon does not attain the apex of the fruit cavity, but approaches it more nearly that in *S. costata* and *S. materialis.* Both cotyledons are grooved by ridges of the fruit-wall. A pair of leaves follows the cotyledons, and these, as well as those which follow, possess a peculiar blue green tint which has not been seen in any other species of the order.

There was no chlorophyll in the cotyledons at seed-fall: all other Shoreas examined possess it.



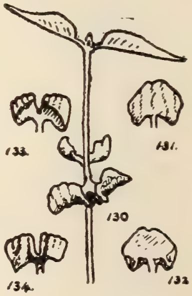


Figure 128, embryo of *Shorea gratissima* with the placentar cotyledon towards the observer; figure 129, the same with the radicle away from the observer, and also in section through the bodies of the cotyledons above the plumule, showing the folds of the placentar cotyledon. All slightly enlarged.

Figure 130, a seedling with its first leaves; figure 131, the outer cotyledon from the outside; figure 132, from the inside; figure 133, the placentar cotyledon from the side towards the outer cotyledon; and figure 134, from the other side. All ½ nat. size.

Shorea pauciflora, Dyer, has a large fruit very like that of *S. costata,* but a trifle greater in length. The embryo seen with the radicle away from the observer is drawn in figure 135. The seedling produced is relatively large, so that with practise it can be detected by eye among the seedlings of other species. The cotyledons are as figured below (figures 136, 137, 138 and 139). The groove in which the placenta lies is not quite so narrow as in some other Shoreas.

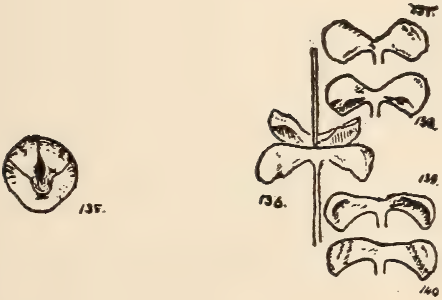


Figure 135, embryo of *Shorea pauciflora* with the radicle away from the observer; figure 136, the cotyledons of *Shorea pauciflora*; figure 137, the outer cotyledon from the outside; figure 138, from the inside; figure 139, the placentar cotyledon from the side toward the outer cotyledon; figure 140, from the other side. Figure 136-140 ½ nat. size.

Shorea pauciflora has a downwardly directed urceolate flower, which seems characteristic.

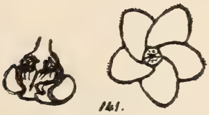


Figure 141, a flower of *Shorea pauciflora* in face view and in vertica section, × 2.

Shorea utilis, King, is the subject of figures 142 to 148. The fruit is rather short (figure 143) and the embryo has its placentar cotyledon only just shut off from the apex of the fruit cavity.

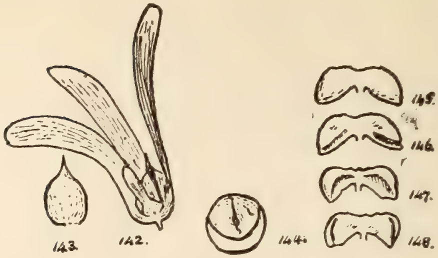


Figure 142, the fruit of *Shorea utilis* with its wings; ½ nat. size; and figure 143 without; figure 144, the embryo with the radicle away from the observer; figure 145, the outer cotyledon from the outside; figure 146, from the inside; figure 147, the placentar cotyledon from the side towards the outer; and figure 148, from the other side. Figures 145-148, nat. size.

Shorea macroptera, Dyer, drawings of which follow, has the cotyledons slightly unequal.

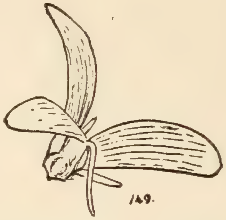


Figure 149, germinating fruit of *Shorea macroptera*, ¼ nat. size.

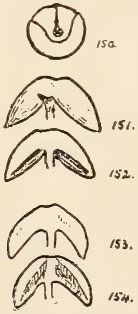


Figure 150, a diagram of the embryo of *Shorea macroptera* as seen with the radicle remote from the observer showing how much of the circumference is occupied by the outer cotyledon; figure 151, the outer cotyledon seen from outside: figure 152, from inside; figure 153, the placentar cotyledon seen from the side towards the outer cotyledon; and figure 154, from the other side figure 151—154 ½ nat. size.

In this Journal No. 76, 1917, p. 166, attention was called to the finding in Singapore of seedlings with three cotyledons: three similar plants were found in Penang in 1918.

Shorea parvifolia, Dyer, has a subglobose capsule: and the embryo has unequal cotyledons, the outer by a little shutting out the placentar cotyledon from the apex of the fruit cavity. The seedling is small in comparison with that of other Shoreas.

Twin seeds were found.

Shorea scutulata, King, has a capsule slightly elongated, the outer cotyledon just shutting the placentar cotyledon out from the apex of the fruit-cavity: these cotyledons appear almost equal after germination.

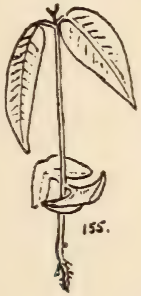
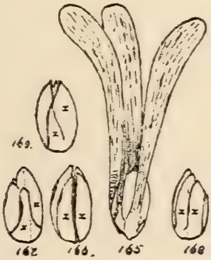


Figure 155, seedling of *Shorea sentilata,* ½ nat. size.

Illustrations of *Shorea Curtisii,* King, follow. It is a species very common on the hills of Penang and rather variable in the shape and size of the fruit as well as in the length and breadth of the calyx-wings, so much so that ultimately several varieties are likely to be distinguished, the fruits of two of which are figured here (figures 165 and 170). Both are represented among the specimens cited by Sir George King in describing the species, so that both are his *Shorea Curtisii.*



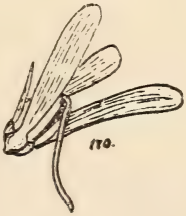


Figure 165, fruit of a variety of *Shorea Curtisii,* with long wings; figure 166, normal embryo of the same with the placentar cotyledon, x-x, towards the observer; figures 167 and 168, abnormal embryos in which the placenta (dotted line) did not occupy the cleft between the lobes of the placentar cotyledon in a normal way; figure 169, an abnormal embryo with one lobe of the placentar cotyledon small. All ½ nat. size.

Figures 170, fruit of a second variety of *Shorea Curtisii* more common in Penang island than the first, ½ nat. size.

The normal cotyledons are not markedly unequal: the outer occupies rather more than one half of the circumference of the embryo as seen with the radicle away from the observer, and just shuts out the placentar cotyledon from the apex of the fruit: but occasionally it may much outgrow it. For cases of nearly equal cotyledons see figures 171-179.

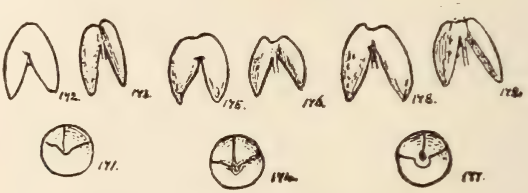
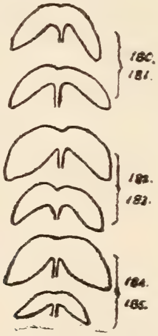


Figure 171, an embryo of the variety of *Shorea Curtisii* figured above as 165, viewed with the radicle away from the observer; figure 172, the outer cotyledon from outside; and figure 173, the inner cotyledon from the face away from the outer cotyledon; figure 174, the naked embryo of the variety drawn above as figure 170, viewed with the radicle away from the observer: and figure 175, the outer cotyledon of the same from outside; and figure 176, the inner cotyledon from the side away from the outer cotyledon; figure 177, a naked embryo of the same variety as figure 170 viewed with the radicle away from the observer; and figure 178, the outer cotyledon from outside; and figure 179, the inner cotyledon from the side away from the outer cotyledon. All ½ nat. size.



Figures 180 to 185, outlines of the cotyledons of three seedlings of *Shorea Curtisii* showing varying degrees of disparity between the cotyledons, the outer cotyledon is the upper of each pair. All ½ nat. size.

Four cases are shown in figures 167 and 168 in which the placentar cotyledon failed to lie against the placenta in a normal way but had, as it were, got across it, so that the placenta had left a shallow impression upon the face of the cotyledon,—a slight groove like the grooves seen in *Shorea costata,* and the result of pressure. These abnormalities were not accompanied by the presence of any twin seed. Again an abnormality is figured in figure 169 in which the lobes of the cotyledons had grown unequally.

Perhaps because I have found so many more thousands of its seeds and seedlings on the hills of Penang than of other Shoreas, I have found such abnormalities in it only.

The next Shorea to be illustrated is *Shorea sericea,* Dyer. Like *Shorea rigida,* Brandis, from which as a species it is doubtfully distinct, it has nearly equal cotyledons, the outer only just the larger, of the same shape as those of *Shorea rigida* (vide this *Journal* No. 76, 1917, p. 164). One case of a seedling with three nearly equal cotyledons was found in Penang.

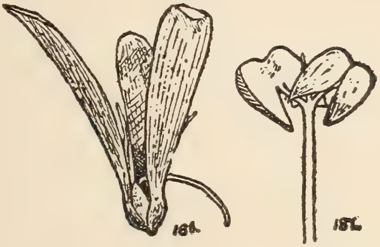


Figure 186, the fruit of *Shorea sericea* germinating, ½ nat, size; figure 187 a seedling with its cotyledons in the position that they assume, slightly reduced

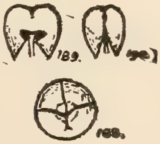


Figure 188, an embryo of *Shorea sericea* seen with the radicle away from the observer; figure 189, the outer cotyledon seen from the outer side; and figure 190, the inner cotyledon seen from the side away from the outer cotyledon. Figures 189 and 190, ½ nat. size.

Shorea sericea flowered in 1918 in Penang a couple of months later than the other Shoreas associated with it.

The last of the seedling Shoreas to be illustrated here is *S. bracteolata,* Dyer. Other species illustrated above have thick cotyledons: they have been arranged into a series commencing with those having cotyledons markedly unequal, and ending with those having cotyledons equal. *S. bracteolata* does not fit into the series, but like *S. leprosula* has flat cotyledons. Attention was called to them in this Journal No. 76, 1917, p. 164, where the cotyledons of *S. leprosula* were described. Unlike *S. leprosula* it has a large flower directed earthwards.

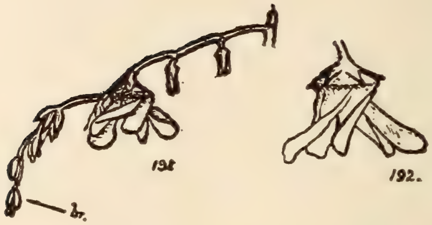


Figure 191, a branch of the compound raceme of *Shorea bracteolata* showing the natural position of the flower: br. = bracts, ⅔ nat. size; figure 192, a flower of *Shorea bracteolata.* nat. size.

The young plant is drawn in figure 193 and the normal condition of the cotyledons in 194, 195, 196 and 197.

An abnormal seed was found with the placentar cotyledon much larger than the outer (figures 198. 199, 200, and 201).

The leaves of the pair which follow the cotyledons are more triangular than the leaves of the mature tree. Figure 12 on p. 165 of this Journal No. 76, 1917, suggests this, but is not good for its purpose.

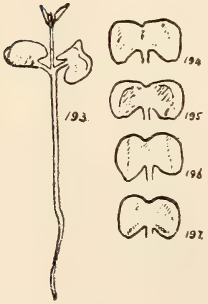
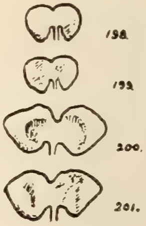
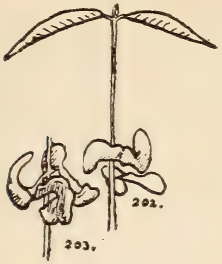


Figure 193, a seedling of *Shorea bracteolata*, showing the position taken by the cotyledons; figure 194, the outer cotyledon from the outside; figure 195; the same from the inner side; figure 196, the placentar cotyledon from the side toward the outer cotyledon; and figure 197, thu same from the other side, ½ nat. size.



Figures 198 to 201, the cotyledon of an abnormal seed of *Shorea bracteolata*; figure 198, the outer cotyledon from tho outside; figure 199, the same from inside; figure 200, the placentar cotyledon from the side toward the outer cotyledon; and figure 201, the same from the other side, Nat. size.



Figures 202 and 203, seedlings of *Shorea bracteolata* in which the cotyledons had been packed twisted into the shape of an S.

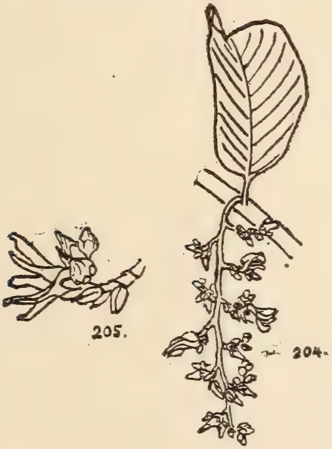


Figure 204, inflorescence of *Shorea lebrosula* to show the horizontal aspect of the flower, nat. size ; figure 205, a branchlet slightly enlarged.

All the Shoreas here described except *S. bracteolata* develop red pigment in their seedlings. *S. macroptera* and *S. Curtisii* possess it also in the leaves which follow while they are quite young.

PACHYNOCARPUS.

In many points the genus *Pachynocarpus* is unlike the other Dipterocarps here under discussion, and in none more so than that the fruits appear fitted for distribution by water. They, in *Pachynocarpus Wallichii*, are nearly globose, and the calyx is no larger than it was in the flower. The flower is drawn in figures 204 and 205 and the fruit just germinating in figure 206. Thirty-four fruits of the species were collected in the Botanic Garden, Singapore, in November, 1918 and kept in water with the intention of ascertaining how long they would float. The first to sink had floated only five days, the second ten days, but the rest floated various periods from ten to forty-six days; and the average of the thirty-four was twenty-two days. They germinated as they sank, the stalks of the cotyledons pushing out a stout plantlet, which rather slowly produced its first foliage leaves. The cotyledons do not escape from the seed: for the purpose of drawing them they were freed as in figure 209: they are thick and approximately equal, dull yellow in colour, packed with starch, and without chlorophyll. The seedling does not look like that of a Dipterocarp. The fruit dehisces along three well defined lines obviously connected with the tri-locular nature of the ovary. The placenta leaves but a shallow impression down the placentar cotyledon.

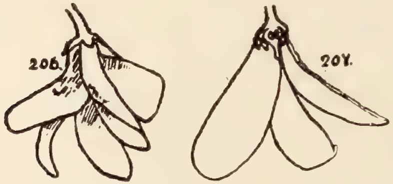


Figure 206, the flower of *Pachynocarpus Wallichii* from the side; figure 207, the same in section.

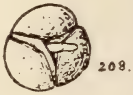
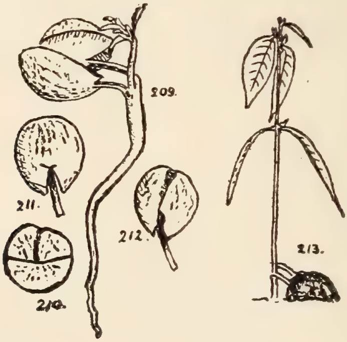


Figure 208, the germinating fruit of *Pachynocarpus Wallichii*, the radicle just extruded.



Fgure 209, a seedling of *Pachynocarpus Wallichii*, the fruit wall has beon removed, on doing which the cotyledons part a little in consequene of stresses in their petioles, ½ nat. size; figure 210, the embryo of *Pachynocarpus Wallichii* with the radicle away from the observer; figure 211, the cotyledon which is the outer in *Dipterocarpus* from the outside; figure 212, the placentar cotyledon with the side away from the other cotyledon toward the observer.

Addenda et Corrigenda.

We were unable to correct the proofs of the first part of this paper, published in Journal, No. 80, May 1919, and the following additions and alterations are necessary:—

Map			for	Heloetia	read	Helvetia
,,			,,	Toerra	,,	Toewa
p. 76	line	22	,,	**capellei**	,,	**capelli**
78	,,	6	,,	Talaman	,,	Talamau
85	,,	24	,,	**Mentinting**	,,	**Meninting**
86	,,	34-5	insert	between “from the Malay Peninsula and as the above wing measure.”		
,,	,,	36	delete	whole line.		
90	,,	34	for	*Macropteryae*	read	*Macropteryx*
,,	,,	41	,,	*longipennis*	,,	*comata*
92	,,	27	,,	**pravaata**	,,	**pravata**
95	,,	4	delete	whole line.		
97	,,	29	for	Talaman	,,	Talamau
103	,,	21	,,	Nomenclautre	,,	Nomenclature
,,	,,	26	insert	in blank spaces:—		> >
107	footnote		for	1919	read	1909
110	line	42	delete	whole line.		
111	,,	34		Though *A. p. phaeocephalus* (Harll) is recorded from Borneo, birds with yellow-tipped tails *A. p. diardi* (Temm. in Finsch) seem prevalent there and it is possible that this form entirely replaces the typical one.		
p. 112	line	26	for	*portea*	read	*postea*
,,	,,	,,	,,	61	,,	133
113	,,	8	delete	parentheses.		
116	footnote		for	H. H. R.	read	Atti
117	,,	40	,,	from	,,	form
118	,,	21	,,	Talaman	,,	Talamau
121	,,	12	,,	Stoliezka	,,	Stoliaczka
122	,,	4	,,	hae	,,	have
124	last lines		delete	“originally applied to Javan birds”		
126	line	5	for	61	read	133
,,	,,	6	,,	**cuentus**	,,	**cruentus**
,,	,,	25	,,	interscapulum	,,	interscapulium
132	,,	5	from bottom	delete whole line.		
,,	,,	4	,,	for, read; and insert iid. before Journ.		
133	,,	27	for	40	read	112
,,	,,	41	,,	54	,,	125

On A Collection of Birds from N. E. Sumatra.

BY

H. C. Robinson, C.M.Z.S., M.B.O.U.

AND

C. Boden Kloss, F.Z.S., M.B.O.U.

PART II.

Since the publication of the first part of this paper (antea pp. 74-133), we have been favoured with a further series of birds by Heer A. C. F. A. van Heyst which, containing as it does, a considerable number of species not included in his former consignments, merits description in detail. In addition we have received a copy of a paper by Dr. L. F. de Beaufort and Dr. L. P. de Bussy "Vogels van de Oostkust van Sumatra" (*Bijdragen tot de Dierkunde uitgegeven door het Koningklijk Zoölogisch Genootschap "Naturis Artis Magistra" te Amsterdam,* xxi, pp. 229 to 276 (1918?) which deals with a large collection of birds made in precisely the same localities as that of Heer van Heyst. We have quoted this article throughout as "de Beaufort and de Bussy p.—."

As the area covered by the political division known as the Sumatran East Coast Residency has now been explored in some detail, at least as regards its ornithology, we have indicated briefly the total number of species definitely known to occur in the area to which no great additions, except Limicoline, coastal and migrant forms are now to be expected, with the possible exception of such species as thrushes, warblers and white-eyes which may perhaps be found on the summits of the highest mountains above 5,000 feet which have not yet been dealt with.

We have throughout, where necessary, quoted the first part of this paper as "antea p. ."

Two new forms *Pycnonotus bimaculatus barat,* inhabiting West Java and the whole of the upland areas of Sumatra and *Cryptolopha montis inornata,* known as yet only from the Battak High lands are here described and a new name *Tephrodornis pelvica fretensis* given to the Wood Shrike inhabiting Eastern Sumatra and the Southern Malay Peninsula, while the additions listed raise the number of definitely recorded Sumatran species to 548.

Heer van Heyst has forwarded us the following additional account of the type of country collected over.

"The district of Deli can be subdivided into

(i). Low land up to about 100 m. (225 feet), once covered with sea.

(ii). Hill land from 100-400 m. (325-1,300 feet).

(iii). Mountain land from 450-2,000 m. (1,460-6,500 feet).

(iv). The Karo Tableland.

Under (i) which is bordered on its seaward face by *bakau* (mangrove) forests fall the collecting stations Polonia, Mabar and Tanjong Morawa. They are tobacco estates, mainly fallow land, covered with young scrub and *lalang* grass. One eighth of an estate is planted per annum and after that lies fallow for seven years. Along the Batang Koewis (Tanjong Morawa), the boundary river between Deli and Serdang, is a strip of old jungle, where a number of birds were collected as also in the kampongs (villages) along the river. In various places are swamps. Characteristic of the district are tall tualang trees (*Koompassia sp.*).

(ii). Hill land up to about 200 m. (650 feet) which is almost the limit of tobacco cultivation, is mostly without forest. Above that level the terrain has been largely felled by Battaks but there are still patches of big forest; the country is also characterised by steep ravines and slopes. In this region are the collecting stations, Deli Toewa, Toentoengan and Gambir.

(iii). On the south side at about 700 m. (2,275 feet) begins old forest which stretches across the chain of the Karo Mts. (2,000 mm. 6,500 feet) to the Karo Tableland. On the north side lies Bandar Baroe, on the Medan-Toba road at the foot of Mt. Sibajak, at the entrance to the Tengkeh Pass. Birds collected there come from the north slopes of Mt. Sibajak, at a height of 1,000-1,400 m. (3,250-4,550 feet). At the highest point of the pass is Tengkeh (1,430 m.) (4,650) with magnificent high old forest.

(iv). Karo Tableland is covered with *lalang* grass and surrounded by mountains often 1500 m. (4875 feet) in height. Trees are to be found in deep ravines and in the native villages. On the tableland is also occasional Battak cultivation. On the north side lies Brastagi. Birds from that locality were collected on the southern slopes of the Karo Mts., on the tableland itself, and in the villages."

In addition to those obtained by Heer van Heyst the following species appear in the list published by Messrs. de Beaufort and de Bussy regarding which the following notes may be of interest. The numbers prefixed are those of the authors, appended ones are from our own list. (Journ. Fed. Malay States Mus. VIII. pt. 2. 1918. pp. 261-284).

4. *Lophura rufa* (Raffles).

6. *Argusianus argus* (Linn.).
Evidently rare in Sumatra.

11. *Treron nepalensis* (Hodgs.).
More probably the insular race *Treron curvirostra curvirostra* (Raffles).

17. *Streptopelia bitorquata* (Temm.).

The specimen obtained at Medan which we have examined establishes this species as a Sumatran bird which has hitherto been open to doubt.

26. *Gallicrex cinerea* (Lath.).

This species is also established as a Sumatran bird on a specimen obtained at Batang Koewis.

27. *Porphyrio calvus* (Vieill.).

It would be of interest to compare the bird recorded as this species with that described as *P. bemmeleni* from the Toba Meer (Büttikofer, Notes Leyden Museum, XI, p. 191 (1889).

29. *Squatarola helvetica* (Linn.).

Abundant on the Malayan coast.

32. *Ochthodromus mongolus* (Pall.).

A rare straggler in the Straits of Malacca, the dominant form being *O. m. pyrrhothorax* (Gould).

39. *Limonites ruficollis* (Pall.).

43. *Rostratula capensis* (Linn.).

44. *Pseudotantalus cinereus* (Raffles).

45. *Leptoptilus javanicus* (Horsf.).

47. *Ardea cinerea* (Linn.).

All common on the opposite Selangor and Perak Coasts.

48. *Herodias alba timoriensis* (Cuv.).

Personally we consider that Western Malaysian birds are better referred to the typical race and not to this eastern one.

49. *Nycticorax nycticorax* (Linn.).

Not uncommon on the Aroa Ids off the Sungei Rokan Estuary in winter.

54. *Dupetor flavicollis* (Lath.).

Common in the Straits of Malacca.

56. *Sula sula* (Lath.).

Breeds on rocks in the Aroa Ids.

57. *Accipiter trivirgatus* (Temm.).

Lophospizias trivirgatus, Rob. and Kloss, p. 268, No. 130.

58. *Accipiter badius poliopsis* (Hume).

More properly *Astur badius poliopsis.* A new record for Sumatra. We have examined the specimen which agrees with N. Malayan birds but is perhaps slightly darker.

59. *Accipiter soloensis* (Lath.).

Astur soloensis of Rob. and Kloss, p. 268, No. 131.
Its short toes keep this bird out of the genus *Accipiter.*

61. *Ictinaetus malayensis* (Temm.).

65. *Haliastur indus intermedia* Gurney.

Common everywhere: Mr. van Heyst has evidently not thought it worth while to collect it.

66. *Elanus hypoleucus* Gould.

Also very common.

[67. *Machaerhamphus alcinus* Westerm.

This record antedates that of Heer van Heyst].

68. *Pernis ptilonorhynchus* (Temm.).

Pernis cristatus (Cuv.) Robinson and Kloss, p. 268, No. 141.

70. *Polioaetus ichthyaetus* (Horsf.).

75. *Syrnium myrtha* (Bp.).

76. *Photodilus badius* (Horsf.).

77. *Palaeornis torquata* (Bodd.).

Evidently an escaped cage bird.

80. *Batrachostomus javensis* (Horsf.).

98. *Upupa epops indica* Reichenb.

An interesting addition to the Sumatran list.

106. *Tachornis infumatus* (Scl.).

Tachornis battassiensis infumata Rob. and Kloss, p. 271, No. 210.

107. *Pyrotrogon diardi neglectus* Forbes and Robinson.

109. *Pyrotrogon orrhophaeus* (Cab. and Heine).

Pyrotrogon vidua Robinson and Kloss, p. 272, No. 225.

113. *Hierococcyx sparverioides* (Vig.).

The specimen from Brastagi, seems an addition to the Sumatran avifauna.

114. *Hierococcyx bocki* (Wardl. Rams.).

118. *Cuculus poliocephalus* Lath.

Cuculus intermedius subsp. *insulinde* Robinson and Kloss, p. 272, No. 234.

121. *Eudynamis honorata* (Linn.).

Eudynamis honorata subsp. *malayana* Robinson and Kloss, p. 272, No. 241.

126. *Rhopodytes sumatranus* (Raffles).

148. *Chrysocolaptes gutticristatus chersonesus* Kloss.

An addition to the Sumatran avifauna. Wing, ♂ 150; ♀ 143. Bill from gape ♂ 48; ♀ 43 mm. These specimens strikingly confirm the validity of this subspecies originally described from Singapore and Johore.

150. *Thriponax javensis* (Horsf.).

153. *Calyptomena viridis* (Raffles).

160. *Pitta coccinea* Eyton.

Also new to Sumatra.

165. *Cyornis nigrigularis* Everett.

On examination we think that this identification is open to considerable doubt but leave the question open for the present.

166. *Cyornis sumatrensis* Sharpe.

This species is now established as a Sumatran bird which has hitherto been doubtful.

171. *Xanthopygia xanthopygia* (Hay).

New for Sumatra but a wide-spread migrant.

188. *Aegithina viridissima* (Bp.).

194. *Irena criniger* Sharpe.

197. *Criniger tephrogenys* (Jard. and Selby).

Almost certainly *Criniger sumatranus*, Wardl. Rams.

205. *Otocompsa emeria* (Linn.).

An unexpected addition to the Sumatran list. We have examined the specimen which does not differ from Malayan birds. Possibly an aviary specimen.

212. *Anuropsis malaccensis* (Hartl.).

215. *Cyanoderma erythropterum* (Blyth).

223. *Zoothera andromedae* (Temm.).

224. *Turdus obscurus* (Gm.).

225. *Turdus* (*Geocichla*) *sibiricus* Pall.

Cichloselys sibirica davisoni Robinson and Kloss, pp. 207, 279, No. 424.

228. *Locustella certhiola* (Pall.).

New to Sumatra but recently met with on migration at One Fathom Bank in the Straits of Malacca, lat. 3° N.

232. *Cisticola exilis* (Vig. and Horsf.).

Not definitely recorded from Sumatra hitherto.

244. *Zosterops auriventer* Hume.

Almost certainly *Z. buxtoni* Nicholson.

260. *Sporaeginthus amandava* Linn.

Probably introduced.

271. *Oriolus xanthonotus* Horsf.

282. *Platysmurus leucopterus* (Temm.).

In Dr. Hartert's list (Nov. Zool. ix, pp. 194-221 (1902) the following species not represented either in Messrs. de Beaufort and de Bussy's list or in Mr. van Heyst's collection occur:—

Rollulus roulroul (Scop.). (6).*

---

* Numbers in paren thess apply to ourown list

Osmotreron griseicauda (G. R. Gr.). (24).
Rallina superciliaris (Eyton). (42).
Podicipes fluviatilis philippensis (Bonn.). (51).
Rhyacophilus glareola (Gm.). (84).
Ardea sumatrana Raffles. (102).
Asarcornis scutulata (S. Muell.). (116).
Dendrocycna arcuata (Cuv.).
Pelecanus sp. (probably *roseus* Gm.). (128).
Lophotriorchis kieneri (de Sparre). (134).
Pandion haliaetus (Linn.). (148).
[*Pisorhina* (*Otus*) *bakkamoena sunia* (Hodgs.).]

The occurrence of this owl, the northern form of *P. b. lempiji* is just on the bounds of possibility as a migrant. For the present we prefer not to include it in the formal list of Sumatran birds.

Batrachostomus auritus (J. E. Grey.). (167).
Batrachostomus stellatus (Gould). (169).
Berenicornis comatus (Raffles). (197).
Caprimulgus indica jotaka Temm. and Schleg. (204).
Pyrotrogon oreskios (Temm.). (223).
Centropus rectunguis Strickl. (243).
Pitta muelleri (Bp.). (293).
Eucichla boschi (Muell. and Schleg.). (295).
Dendrophila frontalis (Horsf.). (460).
[*Buchanga stigmatops* Sharpe.]

Not this Bornean bird; but either the form described by us (*antea* p. 125) as *B. leucophaea batakensis,* or *B. leucophaea phaedra,* Reichenow, originally described from Padang.

Buchanga leucogenys Walden (468 B).

A species of wide migratory range omitted from our list: it should stand as No. 468 B.

Anthreptes rhodolaema Shelley. (505).
Dicaeum chrysorrheum Temm. (518).

The following were collected by Modigliani in the vicinity of the Toba Meer. Salvad. Ann. Mus: Civ. Gen. (2), XII, pp. 40-78 (1891).

Ardetta sinensis (Gm.) (112).
Melittophagus swinhoii (Hume). (198).
Lyncornis temmincki Gould. (207).
Gerygone modiglianii Salvad. (313).
Chloropsis venusta (Bp.). (350).
Pnoepyga lepida Salvad. (418).

Parrot (Abhandl. der Konigl. Bayer Akad. der Wissensch, II, Kl. XXIV, Bd. 1, pp. 151-286 (1907) includes the following species:—

Rallina fasciata (Raffles). (41).
Polioaetus humilis (Muell. and Schleg.). (150).

Buceros silvestris (Vieill.). (188).
Pyrotrogon kasumba (Raffles). (220).
Zanclostomus javanicus (Horsf.). (245).
Pitta caerulea (Raffles). (280).
Pitta megarhyncha Schleg. (291 A).

Parrot records with a query four specimens of this species from Deli and "Sumatra." We had not included it in our list but as it is by no means unlikely to occur we have entered it under the number 291 A.

[*Chloropis cochinchinensis cochinchinensis* (Gm.).]

Under the above name is included a specimen from "Sumatra" of the purely Javanese species *Ch. nigricollis* (Vieill.). Without further and better evidence we are not prepared to admit the bird to the Sumatran list.

Finally the following species must be mentioned which does not appear to have been collected of late in North-East Sumatra, though originally obtained there. It appears to be common in West Sumatra whence, in addition to our own series, we have seen numerous specimens.

Pitta schneideri, Hartert. (290).

Two specimens were obtained by Mr. Gustav Schneider on Mt. Si Bajak, Battak Mts., N. E. Sumatra.

The following therefore are definite additions to the Sumatran list as given by ourselves.

Streptopelia bitorquata (Temm.). (36A).
Rallina paykulli (Ljung). (42A).
Gallicrex cinerea (Lath.). (48A).
Astur badius poliopsis (Hume). (131A).
Upupa epops indica Reichenb. (207A).
Collocalia innominata Hume. (214A)
Collocalia linchi cyanoptila Oberholser. (216A).
Hierococcyx sparveriodes (Vig.). (230A).
Brachylophus (*Gecinus*) *chlorolophus vanheysti* Robinson and Kloss. (264A).
Chrysocolaptes guttacristatus chersonesus Kloss (276A).
Pitta megarhyncha Schleg. (291A).
Pitta coccinea Eyton. (292A).
Cyornis nigrigularis Everett. (303A).
Cyornis sumatrensis Sharpe. (303B).
Cyornis vanheysti Rob. and Kloss. (303C).
Zanthopygia zanthopygia (Hay). (314A).
Criniger finschii Salvad. (359A).
Otocompsa emeria (Linn.). (371A).
Kenopia striata (Blyth.). (405A).

Locustella certhiola (Pall.). (434A).
Cisticola exilis (Vig. and Horsf.). (441A).
Trichixos pyrrhopyga Less. (431A).
Buchanga leucophaea batakensis Rob. and Kloss. (468A).
Buchanga leucogenys Walden. (468B).
Munia atricapilla (Vieill.). (486A).

The following names replace those previously used:—

Macropygia ruficeps sumatrana Rob. and Kloss. (35).
Lalage fimbriata fimbriata (Temm.). (336).
Cryptolopha montis inornata Rob. and Kloss. (331).
Pycnonotus bimaculatus barat Rob. and Kloss. (369).
Setaria affinis atricapilla (Bp.). (389).
Stachyris maculatus pectoralis (Blyth.). (401).
Cyanoderma erythroptera pyrrhophaea (Hartl.). (406).
Tephrodornis pelvica fretensis Rob. and Kloss (451).

Messrs. de Beaufort and de Bussy's list comprises 282 species and Heer van Heyst's 285 of which 224 are common to both, making a total of 343 species. To these must be added 22 species from Dr. Hartert's list, 6 from Salvadori's list, 7 from Parrot's list and *Pitta schneideri,* making a total of 379 species definitely recorded from the administrative division of Sumatra's East Coast.

Analysis of the collection which covers a range in altitude of from sea level to about 1500 m. (= 5,000 feet approximately) indicates that as regards the montane fauna that of Sumatra is very homogeneous, the only group missing in the present collection being the Javanese element which occurs at higher levels in the mountains of the West Coast comprising species such as *Turdus indrapurae, Cettia sumatrana, Notodela diana sumatrana, Zosterops montana, Pericrocotus miniatus* and the forms of *Cryptolopha* allied to *grammiceps*, etc. We attach no importance to the absence of such genera as *Rimator,* and *Turdinulus* which are easily overlooked, the more so as an equally skulking form, *Pnoepyga*, is represented. Among the lowland forms certain essentially continental species occur, such as *Geocichla citrina citrina, Otocompsa emeria, Chrysocolaptes guttacristatus* and *Upupa epops indica;* while other races show a tendency to vary in the directions of Northern forms rather than towards the Javanese which, in view of the great length of the island, is not in the least surprising.

PHASIANIDAE.

1. **Excalfactoria chinensis chinensis** (Linn.). Antea, p. 75, de Beaufort and de Bussy, p. 237.

1 ♀ Toentoengan, Deli, N. E. Sumatra, 16th October, 1918 [No. 1134].
Wing, ♀, 69 mm.

2. **Chalcurus chalcurus** (Less.). Antea, p. 75.

5 ♂, 3 ♀, Bandar Baroe, Deli, N. E. Sumatra, 19th August, 1918—23rd January, 1919. [Nos. 1100, 1297-1300, 1403-5].

One female, apparently young, has the upper breast obscurely barred in the same fashion as the back and mantle.

Wing, ♂, 184, 164, 163, 173, 179; ♀, 152, 166 (imm. ?), 163 mm.

TRERONIDAE.

3. **Sphenocercus oxyurus** (Temm.).

Robinson and Kloss, p. 105; Hartert, p. 216; de Beaufort and de Bussy, p. 238.

2 ♂, Bandar Baroe, Deli, N. E. Sumatra, 20-29th August, 1918 [Nos. 1096-1111].

Wing, ♂, 168, 165 mm.

Differ in no way from our large series from West Sumatra.

4. **Ptilinopus jambu** (Gm.).

Hartert, p. 216; de Beaufort and de Bussy, p. 239.

1 ♀, Serbolangit, Deli, N. E. Sumatra, 1800 feet, 6th August, 1918 [No. 1057].

Wing, ♀, 133 mm.

This Fruit-Dove is now known to be partially migratory and has been obtained in considerable numbers at the One Fathom Bank Lighthouse off the Selangor Coast in November and December, 1918.

5. **Carpophaga badia** (Raffles).

Robinson and Kloss, p. 107; Hartert, p. 216; de Beaufort and de Bussy, p. 239.

1 ♂, 2 ♀, Bandar Baroe, Deli, N. E. Sumatra, 11th August, 1918—17th January, 1919 [Nos. 1061, 1356-7].

2 ♂, Brastagi, Simeloengan, N. E. Sumatra, 25th January, 1919 [Nos. 1401-2].

Wing, ♂, 232, 240, 232; ♀, 228, 230 mm.

COLUMBIDAE.

6. **Macropygia ruficeps sumatranus**, Robinson and Kloss. Antea. p. 77.

de Beaufort and de Bussy, p. 239.

1 ♂ imm., Bandar Baroe, Deli, N. E. Sumatra, 20th August, 1918 [No. 1097].

Wing, ♂ imm., 138 mm.

7. **Chalcophaps indica** (Linn.). Antea, p. 79.
de Beaufort and de Bussy, p. 239.

1 ♂, Toentoengan, Deli, N. E. Sumatra, 20th November, 1918 [No. 1195].

Wing, ♂, 145 mm.

RALLIDAE.

8. **Limnobaenus paykulli** (Ljung).

Sharpe, Cat. Birds Brit. Mus. XXIII, p. 149 (1894).

1 ♂, Medan, Deli, N. E. Sumatra, 7th January, 1918 [No. 1126].

Wing, ♂, 125 mm.

This rail, rare everywhere, does not appear to have been hitherto collected in Sumatra. The F. M. S. Museums possesses specimens from near Taiping and Kuala Lumpur, obtained by Mr. E. Seimund in the months of March and December.

LARIDAE.

9. **Hydrochelidon leucoptera** (Meisn. and Schinz).

de Beaufort and de Bussy, p. 241.

1 ♂, Pantai Tjermin, Serdang, N. E. Sumatra, 5th December, 1918 [No. 1264].

Wing, ♂, 211 mm.

We are a little doubtful about this identification, the bird being in winter plumage: the tail is grey with the feathers of the rump of the same colour in the middle: we do not, however, think that it is to be referred to *H. hybrida.*

10. **Sterna saundersi,** Hume.

Robinson and Kloss, p. 265.

2 ♂, 2 ♀, Pantai Tjermin, Serdang, N. E. Sumatra, 5th-6th December, 1918 [Nos. 1266-9].

Wing, ♂, 175, 168 (worn); ♀, 171, 173 mm.

We have named these as above on account of the black shafts to the outer primaries.

11. **Sterna sinensis,** Gm.

Robinson and Kloss, p. 265.

1 ♂, Pantai Tjermin, Serdang, N. E. Sumatra, 5th December, 1918 [No. 1265].

Wing, ♂, 166 mm.

This has clear white shafts to the outer primaries, the black on their inner webs narrower and the grey colour above paler and is therefore presumably *S. sinensis.* Both forms and possibly *S. minuta* are found in Malayan waters but only *S. sinensis* seems to be a breeding bird with us.

12. Sterna tibetana, Saunders.

Robinson and Kloss, p. 265.

3 ♂ hiem., Pantai Tjermin, Serdang, N. E. Sumatra, 5, 7th December, 1918 [Nos. 1270-2].

Wing, ♂, 263, 254, 273 mm.
Common in the Staits of Malacca in winter.

13. Arenaria interpres (Linn.).

1 ♀, Pantai Tjermin, Serdang, N. E. Sumatra, 5th December, 1918 [No. 1254].

Wing, ♂, 142 mm.

14. Charadrius dominicus (P. L. S. Mull.). Antea p. 80.

de Beaufort and de Bussy, p. 241.

1 ♀, Polonia, Deli, N. E. Sumatra, 13th October, 1918 [No. 1136].

4 ♂, 1 ♀, Toentoengan, Deli, N. E. Sumatra, 11-13th November, 1918 [1166-7, 1172-4].

Wing, ♂, 155, —, 166, 165, —, 158; ♀, 158, 158, — mm.

15. Ochthodromus geoffroyi (Wagl.).

de Beaufort and de Bussy, p. 241.

Aegialitis geoffroyi, Hartert, p. 218.

3 ♂, 1 ♀, Pantai Tjermin, Serdang, N. E. Sumatra, 5th December, 1918—5th January, 1919 [Nos. 1243-4, 1344-5].

Wing, ♂, 148, 136 (Worn), 142; ♀, 140 mm.
Separable at once from allied forms by its very much larger bill.

16. Ochthodromus mongolus pyrrhothorax (Gould).

Ochthodromus pyrrhothorax de Beaufort and de Bussy, p. 242.

17. Aegialitis alexandrina dealbata, Swinh.

Charadrius alexandrinus dealbatus Hartert and Jackson, Ibis, 1915, p. 528; Kloss, Ibis, 1918, p. 85.

Aegialitis alexandrina de Beaufort and de Bussy, p. 242.

2 ♂, 1 ♀, Pantai Tjermin, Serdang, N. E. Sumatra, 4-5th December, 1918 [Nos. 1255-7].

Wing, ♂, 108, 109; ♀, 103 mm.

Exposed culmen, ♂, 17, 17.5; ♀, 17.5 mm.

We consider that breeding specimens of this species occuring on the Malayan area are all to be referred to *Æ. a. peronii* while many winter visitors belong to the above race. We have not met with *Æ. a seebohmi* or the typical *Æ. a. alexandrina* within our region.

18. Numenius arquatus, Linn.

Hartert, p. 218; de Beaufort and de Bussy, p. 242.

1 ♀, Pantai Tjermin, Serdang, N. E. Sumatra, 6th December, 1918 [No. 1250].

Wing, ♀, 288 mm.

19. Numenius phaeopus (Linn.).

de Beaufort and de Bussy, p. 242.

1 ♂, Pantai Tjermin, Serdang, N. E. Sumatra, 8th December, 1918 [No. 1251].

Wing, ♂, 222 mm.

20. Totanus calidris (Linn.).

de Beaufort and de Bussy, p. 242.

3 ♂, 6 ♀, Pantai Tjermin, Serdang, N. E. Sumatra, 7th December, 1918—9th January, 1919 [Nos. 1260-3, 1350-1354].

Wing, ♂, 157, 155, 150; ♀, 158, 160, 158, 151, 161, 157 mm.

21. Tringoides hypoleucus (Linn.). Antea, p. 80.

de Beaufort and de Bussy, p. 242.

3 ♀, Pantai Tjermin, Serdang, N. E. Sumatra, 7th January, 1919 [Nos. 1338-40].

Wing, ♀, 105, 107; 107 mm.

22. Terekia cinerea (Güld.).

Hartert, p. 218.

4 ♂, 4 ♀, Pantai Tjermin, Serdang, N. E. Sumatra, 7th December, 1918—7th January, 1919 [Nos. 1245-9, 1347-9].

Wing, ♂, 128, 127, —, 131; ♀, 129, 133, 123 mm.

23. Limicola platyrhyncha (Temm.).

Robinson and Kloss, p. 266; de Beaufort and de Bussy, p. 242.

4 ♂, 2 ♀, Pantai Tjermin, Serdang, N. E. Sumatra, 8th January, 1919 [Nos. 1341-1346].

Wing, ♂, 104, 111, 105, 106; ♀, 109, 103 mm.

Occasionally met with in large numbers on the muddy flats of the Selangor mangrove swamps in winter.

24. **Gallinago stenura** (Kuhl.). Antea, p. 80.

de Beaufort and de Bussy, p. 242.

1 ♀, Brastagi, Simeloengan, N. E. Sumatra, 27th January, 1919 [No. 1390].

Wing, ♀, 127 mm.

This bird is unusual in having only six narrow tail-feathers on each side and four broad median ones, in all 20 feathers; instead of eight and five, or 26 in all, which is the proper complement. The specimen is however undoubtedly *G. stenura* and not *G. megala* Swinh.

25. **Phoyx purpurea manillensis** (Meyen). Antea, p. 81.

de Beaufort and de Bussy, p. 243.

1 ♂, Toba Meer, N. E. Sumatra, 23rd June, 1918 [No. 1105].

Wing, ♂, 380 mm.

26. **Butorides javanica** (Horsf.). Antea, p. 81.

de Beaufort and de Bussy, p. 243.

1 ♂ ad., 1 ♀ imm., Pantai Tjermin, Serdang, N. E. Sumatra, 6th December, 1918 [Nos. 1252-3].

Wing, ♂, 168; ♀, 161 mm.

27. **Bubulcus lucidus coromandus** (Bodd.).

de Beaufort and de Bussy, p. 243.

1 ♀, Polonia, Deli, N. E. Sumatra, 13th October, 1918 [No. 1130].

Wing, ♀, 245 mm.

ANATIDAE.

28. **Dendrocycna javanica** (Horsf.).

Robinson and Kloss, p. 118; de Beaufort and de Bussy, p. 244.

1 ♂, 2 ♀, Toentoengan, Deli, N. E. Sumatra, 4-5th September, 1918 [Nos. 1123-5].

Wing, ♂, 193; ♀, 184, 190 mm.

FALCONIDAE.

29. **Haliaetus leucogaster** (Gm.).

de Beaufort and de Bussy, p. 245.

1 ♀, Pantai Tjermin, Serdang, N. E. Sumatra, 8th January, 1918 [No. 1318].

Wing, ♀, 558 mm.

30. Falco peregrinus calidus (Lath.).

Latham, Ind. Orn. I, p. 41 (1790).

1 ♀, Pantai Tjermin, Serdang, N. E. Sumatra, 10th January, 1919 [No. 1319].

Wing, ♀, 304 mm.

A very beautiful fully adult bird, grey above, head and interscapulary region almost black. Fairly common in the Aroa Ids during the winter months.

STRIGES.

31. Otus bakkamoena lempiji (Horsf.). Antea, p. 83.

Scops lempiji de Beaufort and de Bussy, p. 246.

1 ♀, Toentoengan, Deli, N. E. Sumatra, 22nd January, 1919 [No. 1356].

Wing, ♀, 151 mm.

A quite typical specimen in the brown phase.

32. Ninox scutulata malaccensis (Eyton). Antea, p. 83.

Ninox scutulata de Beaufort and de Bussy, p. 246.

1 ♂, Toentoengan, Deli, N. E. Sumatra, 28th November, 1918 [No. 1228].

Wing, ♂, 198 mm.

The wing being under 200 mm. this specimen, as the previous ones, almost certainly belongs to the resident form.

ALCEDINIDAE.

33. Alcedo meninting (Horsf.). Antea, p. 85.

de Beaufort and de Bussy, p. 248.

Alcedo meninting meninting, Stuart Baker, Bull. Brit. Orn. Club, XXXIX, p. 37 (1918).

1 ♀, Toentoengan Estate, Deli, N. E. Sumatra, 9th November, 1918 [No. 1158].

Wing, ♀, 64 mm.

34. Halcyon pileata (Bodd.). Antea. p. 86.

de Beaufort and de Bussy, p. 248.

1 ♀, Toentoengan, Deli, N. E. Sumatra, 24th November, 1918 [No. 1214].

Wing, ♀, 128 mm.

35. **Halcyon chloris** (Bodd.). Antea, p. 87.

de Beaufort and de Bussy, p. 248.

Sauropatis chloris cyanescens, Oberholser, Proc. U. S. Nat. Mus., 52, p. 189 (1917).

1 ♀, Pantai Tjermin, Serdang, N. E. Sumatra, 5th January, 1919 [No. 1355].

Wing, ♀, 104 mm.

Oberholser's name is applied to a bird from Pulau Taya in the Southern China Sea, North of Banka Island: he refers to it birds from Borneo, Sumatra and neighbouring islands including Bawean in the Java Sea.

BUCEROTIDAE.

36. **Buceros rhinoceros,** Linn. Antea, p. 87.

de Beaufort and de Bussy, p. 249.

1 ♀ imm., Toentoengan Estate, Deli, N. E. Sumatra, 10th November, 1918 [No. 1162].

Wing 500 mm.

37. **Rhytidoceros undulatus** (Shaw.). Antea, p. 88.

1 ♀, Bandar Baroe, Deli, N. E. Sumatra, 10 December, 1918 [No. 1280].

Wing 495 mm.

MEROPIDAE.

38. **Nyctiornis amicta** (Temm.). Antea, p. 89.

de Beaufort and de Bussy, p. 250.

1 ♂, 1 ♀ imm., Toentoengan, Deli, N. E. Sumatra, 4th August—9th November, 1918 [Nos. 10g8, 1154].

Wing, ♂, 128; ♀, 127 mm.

CAPRIMULGIDAE.

39. **Caprimulgus affinis,** Horsf. Antea, p. 89.

de Beaufort and de Bussy, p. 250.

1 ♂, 1 ♀, Toentoengan, Deli, N. E. Sumatra, 23rd November, 1918 [Nos. 1203-4].

Wing, ♂, 164; ♀, 168 mm.

CYPSELIDAE.

40. **Collocallia linchii cyanoptila,** Oberholser. Antea, p. 90.

1 ♀, Brastagi, Simeloengoen, N. E. Sumatra, 27th January, 1919 [1391].

Wing, ♀, 99 mm.

TROGONIDAE.

41. **Hapalarpactes mackloti** (S. Muell.). Antea, p. 91. de Beaufort and de Bussy, p. 252.

2 ♂, Bandar Baroe, Deli, N. E. Sumatra, 29th August, 1918 [Nos. 1109, 1110].

Wing, ♂, 128, 130 mm.

It may here be noted that Messrs. de Beaufort and de Bussy (loc. cit.) record *Pyrotrogon orrophaeus* (Cab. and Heine) from Sennah in the Deli District. The former author also records *Pyrotrogon vidua,* hitherto only known from Borneo, also from the Deli District (Ornith. Monatsb. 16, 1908, p. 190). As these birds are merely representative forms of one species it is extremely improbable that they will both be found to occur in the same area though without seeing the latter specimen also it is impossible to say definitely that *P. vidua* does not occur in Sumatra.

42. **Rhopodytes tristis elongatus** (S. Muell.). Antea, p. 93. de Beaufort and de Bussy, p. 254.

2 ♂, 1 ♀; Bandar Baroe, Deli, N. E. Sumatra, 15th August—15th January, 1919 [Nos. 1080, 1091, 1382].

Wing, ♂, 148, 150; ♀, 143.

As might be expected the series from N. E. Sumatra shows a distinct approach to that inhabiting the Malay Peninsula, Tenasserim and Siam which of late years has usually been known as *Rh. t. hainanus,* Hartert (Nov. Zool, XVII, p. 218 (1910), a name which is not, strictly speaking, tenable.

43. **Rhopodytes diardi** (Less.). Antea, p. 93. de Beaufort and de Bussy, p. 254.

1 ♂, Toentoengan, Deli, N. E. Sumatra, 11th November, 1918 [No. 1165].

Wing, ♂, 125 mm.

44. **Urococcyx erythrognathus** (Hartl.). Antea, p. 94. *Rhamphococcyx erythrognathus* (Hartl.) de Beaufort and de Bussy, p. 254.

2 ♂, 1 ♀, Toentoengan, Deli, N. E. Sumatra, 23rd-26th November, 1918 [Nos. 1206, 1215].

Wing, ♂, 162, 168; ♀, 172 mm.

CAPITONIDAE.

45. **Calorhamphus hayi** (J. E. Grey). Antea, p. 94.

1 ♂, Toentoengan Estate, Deli, N. E. Sumatra, 17th October, 1918 [No. 1139].

Wing, ♂, 82 mm.

46. Chotorhea mystacophanes mystacophanes (Temm.).

Antea, p. 95.

de Beaufort and de Bussy, p. 254.

2 ♀ imm., Toentoengan, Deli, N. E. Sumatra, 12-17th November, 1918 [Nos. 1171, 1189].

47. Cyanops oorti oorti (S. Muell.). Antea, p. 95.

de Beaufort and de Bussy, p. 255.

2 ♀, Bandar Baroe, Deli, N. E. Sumatra, 18-28th August, 1918 [Nos. 1092-3].

Wing, ♀, 92, 92 mm.

48. Xantholaema haemacephala rafflesius (Boie).

Xantholaema haemacephala (P. L. S. Mull.), antea, p. 95; de Beaufort and de Bussy, p. 255; Stuart Baker, Ibis, 1919, p. 219.

1 ♂, Toentoengan, Deli, N. E. Sumatra, 27th November, 1918 [No. 1222].

Wing, ♂, 76 mm.
1069; 1074; 1112; 1178; 9; 1279; 1304; 1363; 1409].

Wing, ♂, 111, 114, —, 113, 112; ♀, 116, —, 106, 108 mm.

In the light of Mr. Stuart Baker's remarks it is evident that the name *Xantholaema haemacephala rafflesius* will henceforth have to be applied to the Sumatran which are now shown to be different from Philippine birds while we have demonstrated that they are separable from the continental form *X. h. indica* (Lath.).

49. Psilopogon pyrolophus (S. Muell.). Antea, p. 96.

de Beaufort and de Bussy, p. 255.

1 ♀, Bandar Baroe, Deli, N. E. Sumatra, 13th August, 1918 [No. 1071].

Wing, ♀, 118 mm.

PICIDAE.

50. Gecinus dedemi, Van Oort.

Notes Leyden Museum XXXIV, p. 59 (1911); Robinson and Kloss, p. 144, pl. V, figs. 1 and 2 (1918); de Beaufort and de Bussy, p. 256.

1 ♂, Bandar Baroe, Deli, N. E. Sumatra, 16th August, 1918 [No. 1084].

Wing, 138, bill from gape 49 mm.

Our plate, above quoted, is not very good as the general colour is much too light in the lower surface which is really almost black with a very strong wash of crimson on the breast.

The mantle also of the male is too red and is not sufficiently differentiated from the nape and occiput which are deep black. However there is no doubt that the Korinchi and East Coast birds are conspecific: there is not yet sufficient material to attempt subspecific distinction, the bird listed above being only the seventh known example.

51. Gecinus vittatus vittatus (Vieill.). Antea, p. 96.

de Beaufort and de Bussy, p. 255.
Picus vittatus vittatus Stuart Baker, Ibis, 1919, p. 189.

1 ♀, Toentoengan, Deli, N. E. Sumatra, 17th October, 1918 [No. 1140].

Wing, ♀, 122 mm.

We cannot admit that *Gecinus vittatus vittatus* and *Gecinus viridanus* stand in subspecific relationship to each other; nor that *Gecinus v. eisenhoferi*, of which we have seen many specimens, has anything to do with *G. viridanus* or is other than a larger northern race of *G. vittatus*. Though Vieillot's original description had no locality attached (we have not ourselves been able to verify the reference) Kloss has already fixed the type locality as Java (Ibis, 1918, p. 105) and Mr. Stuart Baker is not at liberty to transfer it to Malacca.

52. Brachylophus puniceus observandus (Hartert). Antea, p. 97.

1 ♀, Toentoengan, Deli, N. E. Sumatra, 1st November, 1918 [No. 1146].

Wing, ♀, 123 mm.

53. Brachylophus chlorolophus vanheysti, Robinson and Kloss. Antea, p. 97.

1 ♂, Bandar Baroe, Deli, N. E. Sumatra, 19th January, 1919 [No. 1361].

Wing, ♂, 125; bill from gape 28 mm.

This bird which is fully adult serves to confirm the distinctness of the Sumatran race, which is now known from five specimens.

54. Callolophus miniatus malaccensis (Lath.).

Stuart Baker, Ibis, 1919, p. 193.
Chrysophlegma miniatum malaccense, antea, p. 99.

[♂] Toentoengan, Deli, N. E. Sumatra, 7th October, 1918 [No. 1128].

Wing, ♂, 119 mm. (worn).

We may here remark that Kloss's type of *C. m. perlutus* (Ibis, 1918, p. 110), not *C. m. perlatus* as quoted by Stuart Baker, was a fully adult male though a broken type in the text renders this obscure.

55. **Chrysophlegma mystacale**, Salvad. Antea, p. 100.

de Beaufort and de Bussy, p. 256.

1 ♀, Bandar Baroe, Deli, N. E. Sumatra, 19th January, 1919 [No. 1362].

Wing, ♀, 142 mm.

56. **Miglyptes tristis grammithorax** (Lath.). Antea, p. 98.

de Beaufort and de Bussy, p. 256.

1 ♂, Toentoengan, Deli, N. E. Sumatra, 9th November, 1918 [No. 1155].

Wing, ♂, 91 mm.

57. **Tiga javanensis javanensis** (Ljung). Antea, p. 99.

de Beaufort and de Bussy, p. 257; Stuart Baker, Ibis, 1919, p. 207.

1 ♀, Toentoengan, Deli, N. E. Sumatra, 7th October, 1918 [No. 1127].

Wing, ♀, 124 mm.

58. **Chrysocolaptes validus xanthopygius** (Finsch). Antea, p. 100.

Chrysocolaptes validus de Beaufort and de Bussy, p. 257.

1 ♂; 2 ♀, Bandar Baroe, Deli, N. E. Sumatra, 11th August—21st December, 1918 [Nos. 1072, 1302-3].

Wing, ♂, 157; ♀, 153, 160 mm.

59. **Sasia abnormis everetti**, Hargitt. Antea, p. 101.

Sasia abnormis de Beaufort and de Bussy, p. 257; Stuart Baker, Ibis, 1919, p. 211.

1 ♀. Serbolangit, Deli, N. E. Sumatra, 1,800 feet, 9th August, 1918 [No. 1059].

Wing, ♀, 52 mm.

EURYLAIMIDAE.

60. **Psarisomus dalhousiae psittacinus** (S. Muell.). Antea, p. 101.

de Beaufort and de Bussy, p. 257.

3 ♂, 2 ♀, Bandar Baroe, Deli, N. E. Sumatra, 11th August, 1918—21st January, 1919 [Nos. 1065, 1070, 1073, 1412-3].

Wing, ♂, 95, 97, 92; ♀, 94, 97.

HIRUNDINIDAE.

61. **Hirundo rustica gutturalis,** Scop. Antea, p. 103.

Hirundo rustica de Beaufort and de Bussy, p. 259.

1 ♂, Brastagi, Simeloengan, N. E. Sumatra, 25th January, 1919 [No. 1392].

Wing, ♂, 118 mm.

MUSCICAPIDAE.

62. **Hemichelidon ferruginea,** Hodgs.

Hemichelidon cinereiceps Salvad., Ann. Mus. Civ. Gen. (2) XII, p. 51 (1891).

1 ♀, Bandar Baroe, Deli, N. E. Sumatra, 17th December, 1918 [No. 1293].

Wing, ♀, 68 mm.

This is apparently the second record for Sumatra, the first having been obtained by Modigliani at Si Rambe on the Toba Meer.

63. **Alseonax latirostris** (Raffles). Antea, p. 104.

Wing, ♂, 78 mm.

1 ♂, Bandar Baroe, Deli, N. E. Sumatra, 21st January, 1919 [No. 1415].

64. **Cyornis unicolor infuscata,** Hartert. Antea, p. 104.

1 ♂ vix ad., 1 ♀, Bandar Baroe, Deli, N. E. Sumatra, 27th-28th August [Nos. 1115-1117].

Wing, ♂, 76; ♀, 76 mm.

65. **Poliomyias mugimuki** (Temm.). Antea, p 105.

1919 [No. 1397].

1 ♂, 1 ♀, Bandar Baroe, Deli, N. E. Sumatra, 17th December, 1918—18th January, 1919 [Nos. 1291,

Wing, ♂, 73, 76; ♀, 70 mm.

1 ♂, Brastagi, Simeloengan, N. E. Sumatra, 26th January, 1381].

66. **Cyanoptila bella** (A. Hay).

Robinson, Journ. Fed. Malay States Mus., ii, p. 189 (1909).

1 ♂, 1 ♀, Bandar Baroe, Deli, N. E. Sumatra, 18th December, 1918—19th January, 1919 [Nos. 1292, 1358].

Wing, ♂, 95; ♀, 90 mm.

A migrant, sparingly met with in the Malayan area during the winter months.

66A. **Rhinomyias pectoralis** (Salvad.).

Alcippe pectoralis, Salvad. Atti. R. Accad. Torino, iii, 1868, p. 530 (Borneo).

1 ♂, Sungai Tasik, Langkat, N. E. Sumatra, 23rd October, 1919 [No. 1862].

Wing, ♂, 82 mm.

We cannot for the present go into the question of the proper name for this much discussed species.

67. **Culicicapa ceylonensis** (Swains). Antea, p. 107.

de Beaufort and de Bussy, p. 261.

1 ♂, Bandar Baroe, Deli, N. E. Sumatra, 15th January, 1919 [No. 1360].

Wing, ♂, 63 mm.

68. **Cryptolopha trivirgata trivirgata** (Strickl.). Antea, p. 107.

de Beaufort and de Bussy, p. 261.

2 ♀, Brastagi, Simeloengan, N. E. Sumatra, 23rd August, 1918—26th January, 1919 [Nos. 1108, 1400].

Wing, ♀, 54, 56 mm.

69. **Cryptolopha montis inornata,** subsp. nov.

Cryptolopha montis Salvad., Ann. Mus. Civ. Gen. (2) XII, p. 51 (1891).

Cryptolopha davisoni de Beaufort and de Bussy, p. 261.

1 ♂, 1 ♀, Bandar Baroe, Deli, N. E. Sumatra, 26th December, 1918 [Nos. 1316, 1317].

Differs both from the North Bornean *C. montis* Sharpe (Ibis, 1887, p. 442; id., op. cit., 1889, p. 203, pl. VIII, fig. 1) and the Malayan *C. davisoni* Sharpe (P.Z.S. 1888, p. 271).

From the former differs in the very much darker green back and rump, the yellow rump-band almost obsolete; and from the latter in the slightly darker upper parts and very much narrower black stripes in the sides of the head.

Types. Adult made and female collected at Bandar Baroe, Deli, N. E. Sumatra on 26th December, 1918 by Heer A. C. A. van Heyst [Collector's Nos. 1316, 1317].

Wing, ♂, 54; ♀, 50.5 mm.

The two specimens of *C. montis* show the paler colouration of the back noted in the description of *C. davisoni* but the heads of the specimens are not in such condition as to enable us to state definitely whether there is any difference in the tone of the head or extent of the superciliary stripes, though the latter *appear* to be even less distinct than in the Sumatran form.

Specimens compared:—Two from Borneo, six from the Malay Peninsula and two from Sumatra.

70. **Stoparola indigo ruficrissa**, Salvad. Antea, p. 107.

de Beaufort and de Bussy, p. 262.

1 ♀, Bandar Baroe, Deli, N. E. Sumatra, 26th December, 1918 [No. 1314].

Wing, ♀, 74 mm.

71. **Stoparola thalassinoides** (Cab.). Antea, p. 107.

2 ♂, 1 ♀ imm., Bandar Baroe, Deli, N. E. Sumatra, 17th August—14th December, 1918 [Nos. 1087-8, 1285].

Wing, ♂, 77, 78 mm.

CAMPOPHAGIDAE.

72. **Graucalus melanocephalus**, Salvad.

Artamides melanocephalus, antea, p. 108.

3 ♂, 1 sex inc., Bandar Baroe, Deli, N. E. Sumatra, 21st August—22nd December, 1918 [Nos. 1095; 1275-6; 1301].

Wing, 142, 146, 146, 144 mm.

73. **Lalage fimbriata** (Temm.).

Lalage fimbriata culminata, antea, p. 107.

1 ♂, Bandar Baroe, Deli, N. E. Sumatra, 17th August, 1918 [No. 1089].

1 ♀, Toentoengan, Deli, N. E. Sumatra, 12th February, 1918 [No. 993].

Wing, ♂, 98; ♀, 91 mm.

The advent of a fully adult specimen shows that the Sumatran form is not identical with the Malayan but is considerably darker especially on the head and throat which are almost black. The above adult male agrees closely with Bornean adults but we have not yet been able to compare it with typical Javan birds to which the name properly applies. For Bornean birds, if distinct, there are other names available.

74. **Pericrocotus xanthogaster** (Raffles). Antea, p. 108.

2 ♂ ad., 2 ♂ imm., Bandar Baroe, Deli, N. E. Sumatra, 17th August, 1918—19th January, 1919 [Nos. 1090, 1104, 1283, 1365].

1 ♂, Toentoengan, Deli, N. E. Sumatra, 4th August, 1918 [No. 1054].

Wing, ♂, 82 (imm.), 86 (imm.), 88, 86, 84 mm.

The immature males are in a plumage resembling the females but have the base of the tail orange, not pure yellow, and the wing coverts edged with white.

PYCNONOTIDAE.

75. **Aegithina tiphia viridis**(Bp.). Antea, p. 109.

Aegithina tiphia de Beaufort and de Bussy, p. 262.

1 ♀, Toentoengan, Deli, N. E. Sumatra, 18th November, 1918 [No. 1190].

Wing, ♀, 62 mm.

76. **Chloropsis media**(Bp.). Antea, p. 110.

de Beaufort and de Bussy, p. 263.

1 ♂, Bandar Baroe, Deli, N. E. Sumatra, 18th January, 1919 [No. 1368].

Wing, ♂, 99 mm.

77. **Chloropsis icterocephala icterocephala**(Less.). Antea, p. 109.

de Beaufort and de Bussy, p. 263.

1 ♂, Toentoengan, Deli, N. E. Sumatra, 24th November, 1918 [No. 1213].

Wing, ♂, 87 mm.

78. **Chloropsis cyanopogon**(Temm.). Antea, p. 110.

de Beaufort and de Bussy, p. 263.

1 ♂, 1 ♀, Toentoengan Estate, Deli, N. E. Sumatra, 10th November, 1918 [Nos. 1161, 1160].

Wing, ♂, 88; ♀, 80 mm.

79. **Hemixus sumatranus**(Wardl. Rams.). Antea, p. 110.

1 ♀, Laoe Goembah, Brastagi, Simeloengoen, N. E. Sumatra, 1390 metres, 30th June, 1918.

2 ♂, 4 ♀, Bandar Baroe, Deli, N. E. Sumatra, 14th December, 1918—17th January, 1919 [Nos. 1048, 1286, 1369, 1370-4].

Wing, ♂, 86, 82 (imm.); ♀, 88, 87, 90, 90, 82 mm.

80. **Iole olivacea,** Blyth. Antea, p. 110.

de Beaufort and de Bussy, p. 263.

1 ♂, 1 ♀, Toentoengan, Deli, N. E. Sumatra, 17th November, 1918 [Nos. 1183-4].

Wing, ♂, 91; ♀, 85 mm.
"Iris whitish."

81. **Microtarsus melanocephalus**(Gm.). Antea, p. 111.

1 ♂ imm., Serbolangit, Deli, N. E. Sumatra, 560 metres, 9th August, 1918 [No. 1058].

Wing, ♂, 75 mm.

82. **Criniger sumatranus,** Wardl. Rams. Antea, p. 111.

Criniger tephrogenys de Beaufort and de Bussy, p. 263.

1 ♂, 1 ♀, Toentoengan, Deli, N. E. Sumatra, 16th November, 1918.

4 ♂, 3 ♀, Bandar Baroe, Deli, N. E. Sumatra, 900-1400 metres, 13th August, 1918—20th January, 1919 [Nos.

82A. **Criniger finschi,** Salvad.

Atti R. Accad. Torino. VI, 1871, p. 128 (Borneo).

1 ♂, Sungai Tasik, Langkat, N. E. Sumatra, 22nd October, 1919 [No. 1857].

Wing, ♂, 86 mm.

This species has not hitherto been recorded from Sumatra. It will become No. 359A of our list.

83. **Tricholestes criniger** (A. Hay). Antea, p. 111.

1 ♂, Toentoengan, Deli, N. E. Sumatra, 16th November, 1918 [No. 1180].

Wing, 80 mm.

84. **Alcurus leucogrammicus** (S. Muell.). Antea, p. 110.

Pycnonotus leucogrammicus de Beaufort and de Bussy, p. 264.

2 ♂, 1 ♀, Bandar Baroe, Deli, N. E. Sumatra, 16th December, 1918—16th January, 1919 [Nos. 1287, 8; 1374].

Wing, ♂, 81, 81; ♀, 81 mm.

85. **Trachycomus ochrocephalus** (Gm.). Antea, p. 111.

de Beaufort and de Bussy, p. 263.

1 ♀, Toentoengan, Deli, N. E. Sumatra, 21st November, 1918 [No. 1198].

Wing, ♀, 118 mm.

86. **Pycnonotus analis** (Horsf.). Antea, p. 112.

Pycnonotus goiavier analis de Beaufort and de Bussy, p. 264.

6 ♂, Toentoengan, Deli, N. E. Sumatra, 18th November, 1918—31st January, 1919.

Wing, ♂, 89, 92, 93, 87, 89, 91 mm.

87. **Pycnonotus plumosus,** Blyth. Antea, p. 112.

de Beaufort and de Bussy, p. 264.

3 ♂, 3 ♀, 1 sex inc., Toentoengan, Deli, N. E. Sumatra, 1st-27th November, 1918 [Nos. 1141, 2; 1185; 1121, 2; 1221].

Wing, ♂, 85, 85, 78; ♀, 80, 81, 82 mm.

88. **Pycnonotus erythropthalmos cyanochrous,** Oberholser. Antea, p. 113.

1 ♂, 1 ♀, Toentoengan, Deli, N. E. Sumatra, 17 and 20th November, 1918 [Nos. 1194, 1186].

Wing, ♂, 78; ♀, 75 mm.

"Ibris red, edge of eyelid yellow."

89. **Pycnonotus bimaculatus barat,**[1] subsp. nov.

Pycnonotus bimaculatus Robinson and Kloss, Journ. F. M. S. Mus., VIII, pt. 2, p. 180 (1918); id. Antea, p. 112; de Beaufort and de Bussy, p. 264.

6 ♂, 1 ♀, Brastagi, Simeloengoen, N. E. Sumatra, 1390 metres, 26th-28th January, 1919 [Nos. 1383-9].

Wing, ♂, 87, 86, 88, 87, 83, 87; ♀, 89 mm.

We have had examples of this bulbul from East and West Java compared with Horsfield's type in the British Museum and find that the latter is an East Javan bird: *P. b. tenggerensis* Van Oort (Notes Leyden Mus. XXXIV, p. 46, 1911/1912) is therefore a synonym. Birds from Sumatra and West Java are indistinguishable and differ from *P. b. bimaculatus* in the greater extent and intensity of the yellow ear-coverts, in the slightly increased amount of olive in the upper surface, brighter edges to the wing and tail feathers and slightly browner, less black, throats: for these we propose the name:—

Pycnonotus bimaculatus barat[1], subsp. nov.

Types: Adult male and female from Siolak Daras, 3,000 feet, Korinchi Valley, W. Sumatra, collected on 14th and 15th March, 1914 by H. C. Robinson and C. Boden Kloss, Nos. 95-137.

40 examples from Sumatra N. E. to S. W. and 9 from West Java compared with 14 specimens of *P. b. bimaculatus* from E. Java.

90. **Gymnocrotaphus tygus** (Bp.).

Robinson and Kloss, Journ. F. M. S. Mus., VIII, part II, p. 177 (1918).

3 ♂, 4 ♀, Bandar Baroe, Deli, N. E. Sumatra, 15th December, 1918—21st January, 1919 [Nos. 1289, 90; 1375, 6; 1378; 1407, 8].

Wing, ♂, 74, 75, 75; ♀, 78, 73, 76, 75 mm.

---

[1] *barat* (Malay west =)

91. **Rubigula dispar** (Horsf.). Antea, p. 113.

3 ♂, 2 ♀, Toentoengan, Deli, N. E. Sumatra, 16th-24th October, 1918 [Nos. 1131-3, 1163, 1207].

1 ♂, Serbolangit, 560 metres, Deli, 6th August, 1918 [No. 1056].

Wing, ♂, 85, 82, 80, 79; ♀, 78, 84 mm.

There is a slight variation in the colour, the first three males being much more orange on the breasts than the remainder and rather more golden olive above.

91A. **Rubigula cyaniventris** (Blyth.).

Pycnonotus cyaniventris, Blyth, Journ. Asiat. Soc. Bengal, XI, 1842, p. 792 (Singapore).

1 ♀, Sungai Tasik, Langkat, N. E. Sumatra, 22nd October, 1919 [No. 1853].

Wing, ♂, 76 mm.

TIMELIIDAE.

92. **Garrulax bicolor** (Hartl.). Antea, p. 114.

de Beaufort and de Bussy, p. 265.

2 ♂, 1 ♀, Bandar Baroe, Deli, N. E. Sumatra, 15th-24th August, 1918 [Nos. 1077, 1083, 1102].

Wing, ♂, 122; ♀, 131 mm.

93. **Garrulax palliatus** (Temm.). Antea, p. 114.

de Beaufort and de Bussy, p. 265.

1 ♂, 1 ♀, Bandar Baroe, Deli, N. E. Sumatra, 16th August, 1918 [Nos. 1085, 6].

1 ♀, Brastagi, Simeloengan, N. E. Sumatra, 23rd August, 1918 [No. 1101].

Wing, ♂, 120; ♀, 127, 125 mm.

94. **Melanocichla lugubris** (S. Muell.). Antea, p. 114.

de Beaufort and de Bussy, p. 265.

2 ♂, Bandar Baroe, Deli, N. E. Sumatra, 15th August, 1918 [Nos. 1078-9].

Wing, ♂, 131 mm.

95. **Rhinocichla mitrata** (S. Muell.).

2 ♂, Bandar Baroe, Deli, N. E. Sumatra, 27th August, 1918 [Nos. 1120-1].

Wing, ♂, 97, 101 mm.

96. **Aethostoma buttikoferi** (Vorderm.). Antea, p. 265.

2 ♂, ♀, Toentoengan, Deli, N. E. Sumatra, 1st-28th November, 1918 [Nos. 1144, 1218, 1227].

Wing, ♂, —, 68; ♀, 64 mm.

Agreeing well with the previously recorded specimen.

96A. Setaria affinis atricapilla (Bp.).

Napothera atricapilla, Bp. Consp. Av. I, 1850, p. 539 (Sumatra).

Setaria affinis (Blyth). Robinson and Kloss, p. 278, No. 393.

♂, Sungai Tasik, Langkat, N. E. Sumatra, 6th October, 1919 [No. 1822].

Wing, ♂, 76 mm.

So far as we can tell from the single specimen the separation of the Sumatran from the Malayan form under Bonaparte's name founded on one of S. Mueller's birds presumably from Sumatra is well justified. Our specimen differs from typical *S. affinis* in the much darker and more sooty black cap, darker ear coverts and pronounced cinereous breast band. The bill also appears larger.

97. Setaria magna (Eyton).

Hartert, p. 213.

1 ♂, Toentoengan, Deli, N. E. Sumatra, 16th November, 1918 [No. 1176].

98. Setaria cinerea (Eyton). Antea, p. 125.

1 ♀, Toentoengan, Deli, N. E. Sumatra, 16th November, 1918 [No. 1177].

Wing, ♀, 72 (moult) mm.

98A. Alcippe cinerea, Blyth.

Robinson and Kloss, p. 192.

1 ♀, Sungai Tasik, Langkat, N. E. Sumatra, 21st October, 1919 [No. 1852].

Wing, ♀, 64 mm. (in moult).

Relatively to the Malay Peninsula this bird is rare in Sumatra.

99. Stachyris larvata (S. Muell.). Antea, p. 116.

de Beaufort and de Bussy, p. 265.

2 ♂, Bandar Baroe, Deli, N. E. Sumatra, 24th December, 1918 [Nos. 1311, 1312].

Wing, ♂, 57, 58 mm.

100. Stachyris poliocephala poliocephala (Temm.).

Stachyris poliocephala, antea, p. 117.

1 ♂, 2 ♀, Toentoengan, Deli, N. E. Sumatra, 16th-18th November, 1918 [Nos. 1175, 1187, 1191].

Wing, ♂, 71; ♀, 68, 67 mm.

These specimens serve to confirm the slight differences between the typical Sumatran race and the Malayan form, *Stachyris poliocephala diluta* (Ibis 1918, p. 587).

100A. Stachyris maculatus pectoralis (Blyth.).

Timalia pectoralis, Blyth, Journ. Asiatic Soc. Bengal, XI, 1842, p. 793 (Malacca).

Stachyris maculatus pectoralis, Robinson and Kloss, Ibis, 1918, p. 587.

1 ♂, Sungai Tasik, Langkat, N. E. Sumatra, 6th October, 1919 [No. 1818].

Wing, ♂, 81 mm. (in moult).

The Sumatran bird is to be referred to the Malayan and not to the typical Bornean race.

101. Thringorhina striolata (S. Muell.). Antea, p. 116.

1 ♂, 1 ♀, Bandar Baroe, Deli, N. E. Sumatra, 16th December, 1918 [Nos. 1278, 1281].

Wing, ♂, 68; ♀, 68 mm.

102. Stachyridopsis chrysaea bocagei (Salvad.). Antea, p. 117.

de Beaufort and de Bussy, p. 265.

2 ♂, Bandar Baroe, Deli, N. E. Sumatra, 18th-25th December, 1918 [Nos. 1277, 1305].

Wing, ♂, 53, 53 mm.

These specimens are perhaps rather brighter than typical *St. chrysaea bocagei* from the West of Sumatra showing an approach to the Malayan form *S. chrysaea chrysops,* Richmond.

102A. Kenopia striata (Blyth.).

Timalia striata, Blyth, Journ. Asiat. Soc. Bengal, XI, 1842, p. 793 (? Singapore).

1 ♂, Sungai Tasik, Langkat, N. E. Sumatra, 24th October, 1919 [No. 1871].

Wing, ♂, 66 mm.

This species was originally described by Blyth without categorical locality though he later gives Singapore as a locality where it is somewhat doubtful if the species really occurs. It is found in Borneo and occurs widely though sparingly in low country jungle throughout the Malay Peninsula. It is here for the first time recorded from Sumatra and becomes No. 405A of our list.

102B. Cyanoderma crythroptera pyrrhophaea (Hartl.).

Timalia pyrrhophaea, Hartl. Rev. Zool, 1844, p. 402 (Sumatra).

1 ♂, Sungai Tasik, Langkat, N. E. Sumatra, 1st November, 1919 [No. 1912].

Wing, ♂, 61 mm. (moult).

There has been some controversy on the subject of the races of this babbler which we propose to discuss on a later occasion. For the present it is sufficient to state that the Sumatran bird appears to be readily separable from all Malay Peninsula birds by its much darker colour throughout especially on the sides of the head and foreneck and by the much duller crown. In the Bornean bird the head is dark grey throughout. Such evidence as is on record goes to show that the species does not occur at all in Java, and that the type which is not apparently in existence is just as likely to have come from Malacca as from Singapore.

103. Mixornis rubricapillus sumatrana, Bp. Antea, p. 117.

Mixornis rubricapilla sumatrana Kloss, Ibis, 1918, p. 207.

Mixornis gularis, de Beaufort and de Bussy, p. 266.

3 ♀, Toentoengan, Deli, N. E. Sumatra, 1st-11th November, 1918 [Nos. 1145, 1150, 1164].

Wing, ♀, —, 58, 57 mm.

104. Arrenga castaneus (Wardl. Rams.). Antea, p. 118.

Myiophoneus castaneus, de Beaufort and de Bussy, p. 266.

1 ♂ ad., 1 ♀ imm., Bandar Baroe, Deli, N. E. Sumatra, 18th-28th August, 1918 [Nos. 1094, 1116].

Wing, ♂, 146; ♀, 138 mm.

Any variations in the very considerable series of these birds that we have now examined appear to be due solely to age and sex.

105. Arrenga melanura, Salvad. Antea, p. 118.

de Beaufort and de Bussy, p. 266.

1 ♂, 1 ♀, Bandar Baroe, Deli, N. E. Sumatra, 26th December, 1918—17th January, 1919 [Nos. 1310-1364].

1 ♀, Tengkeh, Simeloengan, 4,750 feet N. E. Sumatra, 25th August, 1918 [No. 1090].

Wing, ♂, 127; ♂, 118, 133 mm.

106. Sibia picaoides simillima (Salvad.). Antea, p. 117.

de Beaufort and de Bussy, p. 266.

1 ♂, Bandar Baroe, Deli, N. E. Sumatra, 13th August, 1918 [No. 1066].

Wing, ♂, 113 mm.

107. Pterythius aeralatus cameranoi, Salvad.

Robinson and Kloss, p. 225.

1 ♂, 1 ♀, Bandar Baroe, Deli, N. E. Sumatra, 24th December, 1918 [Nos. 1295, 6].

Wing, ♂, 76; ♀, 73 mm.

TURDIDAE.

108. **Henicurus ruficapillus,** Temm. Antea, p. 119.

2 ♂, 2 ♀, ♀ imm., Toentoengan, Deli, N. E. Sumatra, 9th-12th November, 1918 [Nos. 1156, 1168-70, 1181].

Wing, ♂, 86, 83; ♀, 85, 85 mm.

108A. **Trichixos pyrrhopyga,** Less.

Rev. Zool. 1839. p. 137 (Sumatra).

1 ♂, Sungai Tasik. Langkat, N. E. Sumatra, 24th October, 1919 [No. 1873].

Wing, ♂, 10 mm.

This species was originally described from Sumatra though Sharpe states it has not been recorded from the island: it has therefore to be recorded to our list as No. 431A.

SYLVIIDAE.

109. **Locustella lanceolata** (Temm.).

Robinson and Kloss, p. 279.

2 ♀, 1 sex inc., Toentoengan, Deli, N. E. Sumatra, 22nd November—1st December, 1918 [Nos. 1199, 1202, 1235].

Wing, ♀, 63, 59; sex inc. 58 mm.

110. **Phylloscopus borealis** (Blas.). Antea, p. 120.

2 ♂, 1 sex inc., Toentoengan, Deli, N. E. Sumatra, 22nd November—1st December, 1918.

Wing, ♂, 66, 66; sex inc. 67 mm.

111. **Phyllergates cucullatus sumatranus,** Salvad.

Robinson and Kloss, p. 219.

Phyllergates cucullatus, de Beaufort and de Bussy, p. 268.

1 ♂, Bandar Baroe, Deli, N. E. Sumatra, 15th January, 1919 [No. 1380].

Wing, ♂, 48 mm.

112. **Suya superciliaris albigularis,** Hume. Antea, p. 121.

Suya superciliaris, de Beaufort and de Bussy, p. 268.

2 ♂, Bandar Baroe. Deli, N. E. Sumatra, 25th December, 1918 [Nos. 1307, 1308].

Wing, ♂, 52, 52 mm.

LANIIDAE.

113. **Hemipus obscurus** (Horsf.). Antea, p. 121.

de Beaufort and de Bussy, p. 269.

1 ♂, 3 ♀, Toentoengan, Deli, N. E. Sumatra, 3rd-26th November, 1916 [Nos. 1151, 1208, 1216, 7].

Wing, ♂, 67; ♀, 68, 65, 66 mm.

114. Hemipus picatus (Sykes.).

Robinson and Kloss, p. 223.
Hemipus intermedius, Salvad.; de Beaufort and de Bussy, p. 269.

3 ♂, 1 ♀, Bandar Baroe, Deli, N. E. Sumatra, 25th January and 14th December, 1918 [Nos. 960, 1; 1273, 4].

Wing, ♂, 62, 63, 65; ♀, 65 mm.

115. Lanius tigrinus (Drap.). Antea, p. 122.

de Beaufort and de Bussy, p. 269.

♀ vix ad., Toentoengan, Deli, N. E. Sumatra, 17th November, 1918 [No. 1188].

Wing, ♀, 81 mm.

116. Tephrodornis pelvica fretensis, subsp. nov.

Tephrodornis sordida Stoliczka (nec. Lesson) Journ. Asiat. Soc. Bengal XXXIX, p. 320 (1870); Robinson and Kloss, Journ. Fed. Malay States Mus., VIII, pt. 2, p. 221 (1918).

Tephrodornis pelvica sordida, antea, p. 121.

Misled by Stoliczka (loc. cit.) who ascribed *Tephrodornis sordida* to Wallace on a Malacca bird, whereas (fide Tweeddale, Ibis, 1871, p. 175) it is really to be attributed to Lesson (Voy. Belanger, 1834, p. 253 and is actually a synonym of *Tephrodornis pondiceriana* (Gm.), we used this name for the Malayan and East Sumatran birds which are intermediate between *T. gularis* of West Sumatra and *T. p. annectens* R. and K., of Peninsular Siam. We now propose that this race should be known as above.

It is a trifle smaller than *T. p. annectens* and greyer, the mantle being like the head, not earthy brown distinct from the cap. It differs from *T. gularis* in larger size, less blue-grey colour, earthy brown tail and wings, more ashy throat, breast and flanks, and in the absence of white on the forehead.
Type. Adult male (F. M. S. Mus. No. 821/07) from Gunong Angsi, Negri Sembilan, F. M. S., 2,600 feet, November, 1907.

Wing, 100 mm.

Specimens examined. Six males and twelve females from the Malay Peninsula and three males and two immature birds from Sumatra. Wing of males, 97—104 mm., mean 100 mm.

Range. As now known, Selangor to the extreme south of the Malay Peninsula and North-East Sumatra.

PARIDAE.

117. **Parus cinereus malayorum**, Rob. and Kloss. Antea, p. 122.

Parus major cinereus, de Beaufort and de Bussy, p. 270.

3 ♂, 1 ♀, Pantai Tjermin, Serdang, N. E. Sumatra, 4th December, 1918 [Nos. 1236-9].

Wing, ♂, 64, 63, 65; ♀, 65 mm.

SITTIDAE.

118. **Poliositta azurea expectata** (Hartert). Antea, p. 123.

Dendrophila azurea, de Beaufort and de Bussy, p. 270.

2 ♂, 2 ♀, Bandar Baroe, Deli, N. E. Sumatra, 16th August, 1918—19th January, 1919 [Nos. 1081-2, 1313, 1359].

Wing, ♂, 77, 80; ♀, 72, 77 mm.

CORVIDAE.

119. **Dendrocitta occipitalis** (S. Muell.). Antea, p. 123.

de Beaufort and de Bussy, p. 276.

2 ♂, Bandar Baroe, Deli, N. E. Sumatra, 14th-18th August, 1918 [Nos. 1076, 1092].

Wing, ♂, 141, 142 mm.

120. **Cissa chinensis minor** (Cab.). Antea, p. 123.

de Beaufort and de Bussy, p. 276.

1 ♀, Bandar Baroe, Deli, N. E. Sumatra, 14th August, 1918 [No. 1075].

1 ♀, Tengkeh, Simeloengan, N. E. Sumatra, 25th August, 1918 [No. 1098].

Wing, ♀, 132, 133 mm.

DICRURIDAE.

121 **Dicruropsis sumatranus sumatranus** (Wardl. Rams.).

Chibia sumatranus, de Beaufort and de Bussy, p. 275.

2 ♂, 1 ♀, Bandar Baroe, Deli, N. E. Sumatra, 13th August, 1918—17th December, 1918 [Nos. 1067-8, 1294].

Wing, ♂, 146, —; ♀, 152 mm.

122 **Dissemurus paradiseus platurus** (Vieill.). Antea, p. 124.

Dissemurus paradiseus, de Beaufort and de Bussy, p. 275.

Dissemurus paradiseus setifer (Cab.), Stuart Baker, Nov. Zool. XXV, p. 300 (1918).

1 ♂, 1 ♀, Toentoengan, Deli, N. E. Sumatra, 24th December, 1918 [Nos. 1209, 1210].

Wing, ♀, 141 mm.

When our previous article was written we had not received Stuart Baker's article on this species (*loc. cit. supra*). His name for the race is in any event a *nomen nudum* as a reference to the *Museum Heineanum* will show. The true origin of *platurus* Vieillot, is admittedly uncertain but we consider that the locality is fixed as Malacca and Sumatra by Tweeddale (Ibis 1877, p. 314) and we now further restrict it to Malacca *sensu stricto*. We possess considerable series of the Javan bird to which if distinct the name *D. formosus*, Cab. (Mus. Hein., i, p. 111, 1850) applies.

123. Buchanga leucophaea batakensis, Robinson and Kloss.

Antea, p. 125.

Buchanga cineracea, de Beaufort and de Bussy, p. 125.

1 ♂, 1 ♀, Bandar Baroe, Deli, N. E. Sumatra, 11th August, 1918 [Nos. 1062, 1063].

Wing, ♂, 123; ♀, 123 mm.

124. Bhringa remifer remifer (Temm.).

Bhringa remifer, antea. pp. 125, 133: de Beaufort and de Bussy, p. 275.

2 ♂, 3 ♀, Bandar Baroe, Deli, N. E. Sumatra, 26th August, 1918—20th January, 1919 [Nos. 1113, 1284, 1309, 1366, 1367, 1411].

Wing, ♂, 134, 128; ♀, 125, 125, 124, 126 mm.

The advent of these freshly moulted specimens with perfect tails enables us to state that Sumatran birds belong to the Javan and not to the recently described Malayan form *B. remifer peracensis* Stuart Baker (Bull. Brit. Orn. Club XXXIX, p. 18 (1918).

ORIOLIDAE.

125. Oriolus melanocephalus, Linn.

Salvad., Bull. Mus. Zool. Torino, XI, p. 21 (1896); de Beaufort and de Bussy, p. 261.

4 ♂, 2 ♀, Pantai Tjermin, Serdang, N. E. Sumatra, 6th December. 1918—10th January, 1919 [Nos. 1241-2. 1330-1333].

Wing, ♂, 134, 142, 139, 134; ♀, 137, 134 mm.

Hartert (Bull. Brit. Orn. Club. XXXVIII, p. 65 (1918) has separated the Orioles of this species inhabiting the area from Peninsular Siam eastwards to Cambodia from the typical Indian form under the name *Oriolus luteolus thaiacous* as having more black in the tail and being slightly smaller. Our large series, including many from the actual type locality, does not bear out these statements however, and we cannot therefore admit the subspecies.

Of the above series, which are fully adult, three have no black whatever on the outer pairs of tail feather and three have more or less black on all the tail feathers and both forms would therefore be represented. The species is not improbably migratory in Sumatra, the above locality being on the sea-coast.

126. **Oriolus cruentus consanguineus** (Wardl. Rams.). Antea, p. 126.

4 ♂ ad., 1 ♂ imm., 2 ♀, Bandar Baroe, Deli, N. E. Sumatra, 20th August, 1918—20th January, 1919.

Wing, ♂, 128, 136 (imm.), 134, 135, 136; ♀, 128, 127 mm.

The immature male has the scapulars and feathers of the breast and flanks with fulvous edges and lacks the crimson wing patch. The females have the breasts very slightly washed with pink.

STURNIDAE.

127. **Sturnia sturnina** (Pall.). Antea, p. 127.

2 ♂, 1 ♀, Toentoengan, Deli, N. E. Sumatra, 28th November, 1918 [Nos. 1223-5].

Wing, ♂, 103, 103; ♀, 107 mm.

128. **Gracula javana javana** (Cuv.). Antea, p. 126.

1 ♂, 1 ♀, Toentoengan, Deli, N. E. Sumatra, 8th November, 1918 [Nos. 1152, 3].

Wing, ♂, —; ♀, 176 mm.

PLOCEIDAE.

129. **Munia acuticauda,** Hodgs. Antea, p. 128.

1 ♀, Bandar Baroe, Deli, N. E. Sumatra, 21st December, 1918 [No. 1315].

Wing, ♀, 51 mm.

130. **Munia atricapilla** (Vieill.).

de Beaufort and de Bussy, p. 273.

1 ♂, 3 ♀, Brastagi, Simeloengoen, N. E. Sumatra, 1390 metres, 25th-28th January, 1919 [Nos. 1393-6].

Wing, ♂, 50; ♀, 50, 49, 50 mm.

The above series is very pale when compared with a series from Southern Tenasserim which presumably represent *M. a. rubronigra* Hodgs. (Asiatic Researches XIX, p. 153 (1836). They can however be matched by birds from the neighbourhood of Taiping, Malay States, though dark individuals also occur there and in the Dindings. The bird however is very local in the Malay Peninsula and our series is extremely small.

MOTACILLIDAE.

131. **Motacilla boarula melanope,** Pall. Antea, p. 129.

1 sex inc., Toentoengan Estate, Deli, N. E. Sumatra, 8th October, 1918 [No. 1129].

Wing, 83: Tail 97 mm.

132. **Dendronanthus indicus**(Gm.). Antea, p. 129.

1 ♂, Toentoengan Estate, Deli, N. E. Sumatra, 8th December, 1918.

Wing, ♂, 76 mm.

NECTARINIIDAE.

133. **Chalcostetha calcostetha**(Jardine). Oberh. Smiths. Misc. Collections, 60, No. 7, p. 17 (1912).

Chalcostetha pectoralis, de Beaufort and de Bussy, p. 270.

10 ♂, Pantai Tjermin, Serdang, N. E. Sumatra, 6th December, 1918 and 5th-10th January, 1919 [Nos. 1240, 1321-1329].

Wings, ♂, 60, 60, 62, 59, 59, 61, 59, 59, 60, 60 mm.

134. **Aethopyga siparaja siparaja**(Raffles). Antea, p. 130. de Beaufort and de Bussy, p. 271.

3 ♂, 2 ♀, Toentoengan, Deli, N. E. Sumatra, 16th October—1st December, 1918 [Nos. 1135, 1143, 1149, 1229, 1230].

Wing, ♂, 50, 52, 49; ♀, 45, 49 mm.

135. **Leptocoma hasselti**(Temm.).

1 ♂, Pantai Tjermin, Serdang, N. E. Sumatra, 10th January, 1919 [No. 1320].

Wing, ♂, 49 mm.

136. **Anthreptes macularia,** Blyth.

Anthothreptes hypogrammica (Mueller) et auct.: Robinson and Kloss, p. 282.

1 ♂, Toentoengan Estate, Deli, N. E. Sumatra, 28th November, 1918 [No. 1226].

Wing, ♂, 67 mm.

It is with regret we must record that *hypogrammica* as the name of this species of sunbird must give way to *macularia* Blyth. *Anthreptes macularia* was founded on a female from Malacca and although Blyth a year later regarded this name as a *nomen nudum* and described a male from Singapore as *Anthreptes nuchalis* (Journ. Asiat. Soc. Bengal XII (1843) p. 980) yet the diagnosis attached "allied in plumage to the *Arachnotherae*" is perfectly adequate and his earlier name must stand. Dr. Hartert was apparently ignorant of this when quite recently he restricted *hypogrammica* of Mueller to Sumatra and gave the name *intensior* to Bornean birds.

Thus the birds in each of the large Malaysian land masses have got names of their own:—

1. *Anthreptes macularia.* Blyth, Journ. Asiat. Soc. Bengal, XI (1842) p. 107. Malay Peninsula. [Settlement of Malacca].
2. *Nectarinia hypogrammica.* Mueller, Naturl. Gesch. Land-en Volkenk (1843) p. 173. Sumatra.
3. *Anthreptes hypogrammica intensior.* Hartert, Bull. Brit. Orn. Club, XXXVIII (1917) p. 27. Borneo [Balingean, Sarawak].

We, however, after comparison of the above specimen with a pair from Borneo, can find no difference between the birds of the two islands and must therefore regard *A. h. intensior* as not fully established

Differences between the island birds and those of the Malay Peninsula are, in our opinion on the material available (and it should be noted that at present we have only four examples of the former though many of the latter) lacking, or so slight that we are not inclined to accept any distinction. (Vide Ibis, 1918, v. 592).

137. Anthreptes malaccensis malaccensis (Scop.). Antea, p. 130.

2 ♂, Pantai Tjermin, Serdang, N. E. Sumatra, 6th and 9th January, 1919 [Nos. 1336, [illegible]].

Wing, ♂, 66; ♀, 67 mm.

138. Arachnothera longirostra longirostra (Lath.). Antea, p. 131.

1 ♂, 1 ♀, Toentoengan Estate, Deli, N. E. Sumatra, 1st and 20th November, 1918.

1 ♂, 1 ♀, Bandar Baroe, Deli, N. E. Sumatra, 17 and 21st January, 1919 [Nos. 1148, 1193, 1379, 1406].

Wing, ♂, 67, 67; ♀ 60 (imm.), 72 mm.

139. Arachnothera flavigaster (Eyton). Antea, p. 131.

1 ♂, 1 ♀, Toentoengan Estate, Deli, N. E. Sumatra, 17th October, 1918.

1 ♂, 1 ♀, Bandar Baroe, Deli, N. E. Sumatra, 4th August, 1918 and 23rd January, 1919.

Wing, ♂, 95, 98; ♀, 96, 105 mm.

DICAEIDAE.

140. **Dicaeum sumatranum**, Cab. Antea, p. 132.

1 ♂, 1 ♀, Toentoengan, Deli, N. E. Sumatra, 16th November, 1918—31st January, 1919 [Nos. 1182, 1471].

Wing, ♂, 46; ♀, 43 mm.

141. **Dicaeum trigonostigma** (Scop). Antea, p. 132.

2 ♂, 2 ♀, Toentoengan, Deli, N. E. Sumatra, 1st November—1st December, 1918 [Nos. 1147, 1200, 1231, 2].

Wing, ♂, 49, 50; ♀, 46, 50 mm.

Dr. Hartert has suggested (Bull. Brit. Orn. Club, XXXVIII, 1918, p. 74 that the comparison of a sufficient series of Sumatran examples with birds from the Malay Peninsula may show differences which would render available the use of *D. croceoventre* Vig., as a name for the Sumatran form. We find, however, that a series of seven Sumatran males which we have before us can be exactly matched out of a series of forty Malayan birds: and that the character of lightness or darkness of the throat is useless as each series exhibits a considerable amount of variation: neither does a single Bornean male differ from the darker-throated Malayan and Sumatran examples.

142. **Dicaeum minullum olivaceum** (Wald.). Antea, p. 132.

2 ♂, Brastagi, Simeloengoen, N. E. Sumatra, 26th January, 1919 [Nos. 1398, 9].

Wing, ♂, 45; 46 mm.

List of Malay Works sold by the Straits Branch Royal Asiatic Society.

Price $2.50 each.

Ht. Sri Rama (*Chĕrita Pĕnglipor Lara*) *Jawi*	Journal	17, 1887.
„ „ „ Rumi	„	55, 1910.
Ht. Raja Donan (Jawi)	„	18, 1887.
Ht. Raja Ambong (Jawi)	„	19, 1887.
Shaer Raja Haji (Rumi)	„	22, 1890.
Ht. Shamsu'l-Bahrain (Jawi)	„	47, 1906.
Ht. Awang Sulong sĕrta Ht. Musang Bĕrjanggut (Rumi)	„	52, 1909.
Ht. Saif al-Yezan (*Saif dzu'l-Yazan*) (Rumi)	„	58, 1911.
Ht. Raja-Raja Pasai (Rumi)	„	66, 1914.
Shaer Burong Punggok sĕrta pĕrumpamaan Mĕlayu (Rumi)	„	67, 1914.
Ht. Marong Mahawangsa (*Sĕjarah Kĕdah*) *sĕrta Sĕjarah Trengganu dan Kĕlantan* (Rumi)	„	72, 1916.
Ht. Sĕri Rama, tĕrsalin daripada naskhah tulisan lĕbeh 300 tahun lama-nya (Jawi)	„	71, 1915.

Ht. Raja Budiman (Jawi)—separate publication.

Second part for the Year
1920.

Price to non-members
$2.50

STRAITS BRANCH
ROYAL ASIATIC SOCIETY.

[No. 82]

SMITHSONIAN INSTITUTION
NOV 20 1926
NATIONAL MUSEUM

JOURNAL

SEPTEMBER, 1920.

Sold at the Society's Rooms, Raffles Museum, Singapore,
and by
MESSRS. WILLIAM WESLEY & SON
82, ESSEX STREET, STRAND,
LONDON. W. C.

PRINTED AT THE METHODIST PUBLISHING HOUSE, SINGAPORE.

[No. 82]

JOURNAL
of the
Straits Branch
of the
Royal Asiatic Society

SEPTEMBER, 1920.

SINGAPORE:
PRINTED AT THE METHODIST PUBLISHING HOUSE,
1920.

CONTENTS.

Page.
Council vii
Proceedings ix
Annual Report, 1919 xi
Balance Sheet, 1919 xiii
List of Members xv
Rules xxiv

Articles:—

A curious Kelantan charm by Dr. J. D. Gimlette .. 116
"Redi" by R. H. Adams 119
The Indian origin of Malay folk-tales by R. O. Winstedt 119
The founder of Old Singapore by R. O. Winstedt .. 127
The Malay Peninsula in the 17th and 18th centuries by A. Caldecott 129
Perak the Arrow-Chosen by R. O. Winstedt 137
The Boria by A. W. Hamilton 139
The Date of the Hikayat Indĕraputĕra by R. O. Winstedt 145
Hikayat Jaya Lĕngkara by R. O. Winstedt 147
Bustanu's-Salatin—its date and author by R. O. Winstedt 151
Malay Manuscripts in the libraries of London, Brussels and the Hague by R. O. Winstedt 153
Malay works known by Werndly in 1736 A.D. by R. O. Winstedt 163
New and Rare Species of Malayan Plants by H. N. Ridley, C.M.G., F.R.S. 167
New Records and Species of Malayan Membracidae by W. D. Funkhouser 205

THE

STRAITS BRANCH

OF THE

ROYAL ASIATIC SOCIETY

Council for 1920.

The Hon. Sir W. Murison	*President.*
R. O. Winstedt, Esq.	*Vice President for Singapore.*
The Hon. Mr. H. W. Firmstone	*Vice President for Penang.*
The Hon. Mr. W. G. Maxwell, C.M.G.	*Vice President for F. M. S.*
Major J. C. Moulton, O.B.E., T.D.	*Hon. Secretary.*
V. Knight, Esq.	*Hon. Treasurer.*
Dr. R. van Beuningen van Helsdingen	*Hon. Librarian.*
Dr. G. H. MacAlister	*Councillors.*
W. Makepeace, Esq.	
H. C. Robinson, Esq.	
H. Robinson, Esq.	

PROCEEDINGS

OF THE

Annual General Meeting.

Minutes of the Annual General Meeting of the Straits Branch of the Royal Asiatic Society, held in the Librarian's Room at the Raffles Museum at 5 p.m. on Thursday, February 26th, 1920.

PRESENT: Dr. D. J. Galloway, in the chair; H. E. Major-General Dudley Ridout, Dr. van Beuningen van Helsdingen, Dr. Argyll Campbell, Dr. MacAlister, Messrs. H. Robinson, R. O. Winstedt, C. Bazell, V. Knight, Rev. J. A. B. Cook, and W. Makepeace, Hon. Secretary.

The Minutes of the Annual General Meeting of Feb. 27th, 1919, were read and confirmed.

The Annual Report and Accounts were taken as read and adopted and the election of new members was confirmed.

The Election of Officers and Members of Council resulted as follows:—

President.—The Hon. Sir William Murison.

Vice President for Singapore.—Mr. R. O. Winstedt.

Vice President for Penang.—The Hon. Mr. H. W. Firmstone.

Vice President for the F. M. S.—The Hon. Mr. W. G. Maxwell, C.M.G.

Hon. Treas.—Mr. V. Knight.

Hon. Sec.—Major J. Moulton.

Hon. Librarian.—Dr. van Beuningen van Helsdingen.

Members of Council.—Dr. MacAlister, Messrs. H. O. Robinson, H. C. Robinson, and W. Makepeace.

On the motion of Dr. Galloway seconded by H. E. Major-General Ridout, Dr. R. Hanitsch was elected unanimously as an honorary member of the Society.

A vote of thanks was passed to Mr. See Tiong Wah for auditing the accounts, and to retiring officers.

A vote of thanks was accorded to Dr. Galloway for presiding.

Annual Report of the Straits Branch of the Royal Asiatic Society for 1919.

The active membership of the Society is estimated at 320.

The Society has been deprived, during the past year, of the valuable services of Dr. R. Hanitsch on retirement. The Hon. Mr. W. George Maxwell, President was transferred early in the year from Singapore and Major Moulton went on leave.

Mr. Valentine Knight kindly undertook the duties of Honorary Treasurer.

The issue of the Journal has been much delayed by pressure of work in the printing presses of Singapore. The Methodist Publishing House is shortly issuing the next number of the Journal. Messrs. Fraser and Neave are printing Mr. Merrill's work on Borneans Plants, and over 400 pp. have been set and corrected. It is proposed to issue this work as a whole. The printing bill of the Society will show a large increase, in accordance with the increased cost of everything. There is matter in hand for the next issue,

The following new members have been elected during the year.

Mr. P. Adelberg
Mr. Audrey Gow
Mr. F. G. Bourne
Major T. F. Chipp
Mr. Dennis Santry
Mr. W. Finnie
Mr. D. H. Grist
Mr. M. C. Hay
Mr. A. B. Jordan
Mr. F. K. Wilson

The audited balance sheet for the year is appended.

WALTER MAKEPEACE,
Honorary Secretary.

STRAITS BRANCH, ROYAL ASIATIC SOCIETY.

Receipt and Payments Account for the year ended 31st December, 1919.

Receipts.	$	c.		c.	Payments.	$	c.	$	c.
To balance brought forward from last Account:					By Printing Journal No. 80 ...	589	89		
					,, Stationery	18	25		
On fixed Deposit: Mercantile Bank	2,500	—			,, Salaries	253	—		
S. S. War Loan	2,200	—			,, Postages and Petties	83	56		
Current Account: Mercantile Bank	1,355	59			,, Illustrations and Journal ...	75	63		
do. : Chartered Bank	10	94			,, Bookbinding	163	95		
		—	6,066	53	,, Malay Manuscript for Library ...	20	—	1,024	28
To Subscriptions:					,, Balances carried forward ...		—		
For the year ended 31st Dec. 1916	10	—			On fixed Deposit: Mercantile Bank	2,500	—		
do. do. 1917	25	—			S. S. War Loan	2,200	—		
do. do. 1918	90	—			Current Account:				
do. do. 1919	850	—			Mercantile Bank	2,431	95		
do. do. 1920	50	—			Chartered Bank	10	94		
5 Life Memberships	250	—					—	7,142	89
		—	1,275	—	London cheque returned unpaid			5	12
To Sale of Journals			586	97					
,, Sale of Maps			110	96					
,, Odd Receipts			23	92					
,, Bank Interest, Mercantile Bank and S. S. War Loan			273	91					
,, Overpaid into Merc. Bank on 4.3.19 by the late Hon. Treasurer.			15	—					
			8,352	29				8,352	29

Audited vouchers, and counterfoil receipts and F/D receipts seen and found correct

SEE TIONG WAH.

February 11th, 1920.

Valentine Knight,

Hon. Treasurer.

February 10th, 1920.

List of Members for 1920.

*Life Members. †Honorary Members.

Patron His Excellency Sir Laurence Guillemard, K.C.B., Governor of the Straits Settlements and High Commissioner for the Malay States.

Date of election.		
18 Jan..	1903.	Abbott, Dr. W. L., 400, South 15th Street, Philadelphia, U. S. A.
10 Aug.,	1918.	Abdul-Majid bin Haji Zainuddin, Education Office, Taiping, Perak.
21 Sept.,	1916.	Abraham, H. C., Survey Dept., Kuala Lumpur.
24 June,	1909.	Adam, Frank, The Straits Trading Co., Singapore.
—	1907.	*Adams, Lieut.-Col., the Hon. Sir Arthur, Messrs. Adams and Allan, Penang, [Vice-President, 1910; 1917-1919].
14 Dec.,	1910.	Adams, H. A., Kuching, Sarawak.
20 June,	1910.	Adams, H. Powys, Imber Cross, Thames Ditton, Surrey, England.
22 March,	1917.	Adams, Dr. J. W., Malacca.
22 March,	1917.	Adams, R. H., Prai, P. W.
10 March,	1909.	Adams, T. S., c/o Federal Secretariat, Kuala Lumpur.
7 Aug.,	1919.	*Adelberg, F., Jenderata Estate, Teluk Anson.
7 Feb.,	1910.	Aldworth, J. R. O., Seremban.
17 Feb.,	1913.	Allen, Rev. George Dexter, M.A., Kuala Lumpur.
3 May,	1914.	Allen, H. C. W., c/o Messrs. Boustead & Co., Singapore.
22 Mrach,	1917.	Allen, Hon. Mr. P. T., Chinese Protectorate, Singapore.
16 Feb.,	1914.	Amery, Rev. A. J., Victoria Bridge School, Singapore.
—	1907.	Anderson, E., Messrs. Mansfield & Co., London.
12 Oct.,	1911.	Armstrong, W. R., L.L.D., D.C.L., Messrs. Logan and Ross, Penang.
27 Oct.,	1908.	Arthur, J. S. W., Assistant Adviser, Kedah.
4 June,	1908.	*Ayre, C. F. C., High School, Malacca.
3 May,	1915.	Baddeley, F. M., Postmaster-General, Singapore.
27 Feb.,	1919.	*Bailey, A. E., 138 Water Street, Manchester, England.
1 Feb.,	1915.	Bain, Norman K., Johore Baharu.

20 May,	1912.	Baker, A. C., c/o W. Evans, Esq: The Limes, Crowmarsh near Wallingford, Berks, England, (Hon. Librarian, 1912-1913).
28 Nov.,	1916.	Banks, H. H., Sanitary Board, Seremban.
10 Jan.,	1899.	*Banks, J. E., c/o the American Bridge Co., Ambridge, Pa., U. S. A.
23 June,	1904.	Bartlett, R. J., c/o Crown Agents.
24 May,	1910.	Bartley, W., Asst. Food Controller, Singapore.
20 July,	1914.	Bazell, C., Vade & Co., Singapore. (Hon. Librarian, 1916—20).
24 June,	1909.	Bean, A. W., c/o Messrs. Robinson & Co., Singapore.
16 June,	1913.	Bell, V. G., Kuala Lumpur.
25 Feb.,	1910.	*Berkeley, H., F. M. S., Civil Service, Grik, Upper Perak.
14 Aug.,	1912.	Bicknell, J. W., c/o General Rubber Co., Medan, Sumatra.
—	1885.	Bicknell, W. A., 98, Victoria Road, Exmouth, Devon, England.
4 June,	1908.	*Bishop, Major C. F., R. A.
27 Jan.,	1890.	†Blagden, C. O., School of Oriental Studies, Finsbury Circus, London. (Hon. Secretary, 1896).
13 Feb.,	1917.	Blair, R. H. Balfour, Tagil Estate, Malacca.
—	1884.	Bland, R. N., C.M.G., c/o Messrs. K. S. King & Co., 9 Pall Mall, London, S. W. I., England. (Council, 1898-1900: Vice-President, 1907—1909).
14 Dec.,	1910.	Boult, F. F., Bintulu, Sarawak.
—	1919.	Bourne, F. J., D. P. P. Office, Singapore.
23 Aug.,	1918.	Boyd, W. R., Asst. Dist. Officer, Taiping.
16 Aug.,	1915.	Boyd-Walker, J. W., Atbara Estate, Kuantan, Pahang.
13 Jan.,	1913.	Braddell, R. St. J., Messrs. Braddell Bros., Singapore.
12 Feb.,	1918.	Bradney, G. P., Audit Office, Singapore.
23 Sept.,	1897.	Brockman, Sir Edward L., K.C.M.G., Kuala Lumpur.
13 Jan.,	1909.	Brooks, C. J., Lebong Tandai, Post Ketaun, Benkoelen, Sumatra.
8 Sept.,	1909.	Brown, A. V., Civil Service, Ipoh.
16 Aug.,	1915.	Brown, C. C., F. M. S. Civil Service, Kuala Kangsar.
27 Jan.,	1910.	Brown, D. A. M., Messrs. Brown, Phillips and Stewart, Penang.
1 Dec.,	1913.	*Bryan, J. M., Kuching, Sarawak.
26 March,	1887.	Bryant, A. T., (Council, 1907: 1910: Vice-President, 1912, 1914-1916). England.
28 Oct.,	1912.	Burkill, I. H., Botanic Gardens, Singapore. Council, 1913: Hon. Secretary, 1914-1917).

29 Sept.,	1913.	*Caldecott, Andrew, Fed. Secretariat, Kuala Lumpur.
16 Jan.,	1916.	Campbell, Professor J. Argyll, M.D., D.SC., Medical School, Singapore (Council, 1917-9).
9 Nov.,	1918.	Carpmael, H., Municipality, Singapore.
3 Jan.,	1909.	Carver, C. I., London.
27 Jan.,	1910.	Chancellor, Hon. Capt. A. R., Police Office, Singapore.
15 Jan.,	1906.	Chapman, W. T., Kuala Lumpur.
7 Aug.,	1919.	Chipp, Major T. F., Botanical Gardens, Singapore.
1 Dec.,	1913.	*Choo Kia Peng,, Kuala Lumpur.
16 March,	1911.	Clayton, T. W., District Officer, Taiping, Perak.
2 Feb.,	1914.	Clement, W. R. T., Ipoh Perak.
22 Mrach,	1917.	Clifford, G. F. W., Effingham Estate, Kuala Lumpur.
13 Jan.,	1913.	Chulan, Raja, bin Ex-Sultan Abdullah, Kuala Kangsar, Perak.
30 Jan.,	1894.	†Collyer, W. R., I. S. O., Hackford Hall, Reepham, Norfolk,, England. (Council 1904: Vice President. 1897-1900, 1902, 1904-1905: Hon. Member, 1906).
1 March,	1897.	*Conlay, W. L., Kuala Lumpur.
27 Jan.,	1899.	Cook, Rev. J. A. B., Gilstead, Singapore.
—	1910.	Cook, Hon. Mr. W. Wallace, c/o The Straits Trading Co., Singapore.
22 March,	1917.	Crichton, R., Civil Service, Kuala Kangsar.
10 Aug.,	1918.	Crick, Lieut. W. L., Asst. Mil. Forwarding Officer, Basra, Persian Gulf.
13 Feb.,	1917.	Cross, Rev. W., M.A., Cavanagh Road, Singapore.
14 Aug.,	1912.	Crossle, Frank J., Ulu Kesial Estate, Kelantan.
27 Jan.,	1910.	Croucher, Dr. F. B. General Hospital, Singapore.
22 March,	1917.	Cubitt, G. E. S., Conservator of Forests, S. S. and F. M. S., Kuala Lumpur.
24 May,	1910.	Daly, M. D., Civil Service, Kuala Lumpur.
27 Jan.,	1910.	Darbishire, Hon. C. W., c/o Messrs. Paterson, Simons & Co., Singapore.
7 Oct.,	1918.	*David, P. A. F., Police Court, Singapore.
—	1907.	Dent, Dr. F., Government Analyst, Singapore.
5 Nov.,	1903.	*Deshon, H. F., Southfield, Combe Down, Bath, England.
23 Sept.,	1897.	Dickson, E. A., District Officer, Kuala Kubu, Selangor.
26 Feb.,	1920.	Dodds, Dr. H. B., Pennag.
28 July,	1905.	Douglas, Hon. R. S., Miri, Sarawak.
30 Nov.,	1914.	Duncan, W. Wallace, Assistant Censor, General Post Office, Penang.
27 Jan.,	1910.	Dunman, W., Grove Estate, Tanjong Katong, Singapore.

16 Aug.,	1915.	*Dussek, O. T., Malay College, Malacca.
—	1885.	Egerton, Sir Walter, K.C.M.G., Fir Toll, Mayfield, England.
27 Jan.,	1910.	Ellerton, H. B., F. M. S. Civil Service, c/o Crown Agents, London.
9 Nov.,	1918.	Elliot, Hon. F. M., Rodyk and Davidson, Singapore.
3 June,	1909.	Ellis, Sir Evelyn C., England.
25 March,	1913.	Ermen, C., Kuching, Sarawak.
17 July,	1918.	Evans, I. H. N., The Museum, Taiping.
27 Jan.,	1910.	Evans, W., The Limes, Crowmarsh near Wallingford, Berks, England.
27 Feb.,	1919.	Fahs, C. H., Secretary, Missionary Research Library, 25 Madison Avenue, New York City.
7 Feb,.	1910.	Falshaw, Dr. P. S., Government Veterinary Department, Singapore.
8 Sept.,	1909.	Farrer, R. J., Municipality, Singapore.
26 Jan.,	1911.	*Ferguson-Davie, Rt. Rev. Dr. C. J., Bishop of Singapore (Council, 1912-1913).
8 Sept.,	1909.	Ferrier, J. G., c/o Borneo Company, Soerabaya, Java.
22 March,	1917.	Finlayson, Dr. G. A., Singapore.
7 Aug.,	1919.	Finnie, W., United Engineers Ltd., Singapore.
24 May,	1910.	Firmstone, Hon. H. W., Penang (Council, 1918—9).
12 Jan.,	1900.	Fleming, T. C., c/o Crown Agents, London.
2 Sept.,	1897.	*Flower, Major S. S., Zoological Gardens, Ghizeh, Egypt.
16 Jan.,	1916.	Ford, H. W., Municipal Offices, Malacca.
17 July,	1918.	Foxworthy, Dr. F. W., Kuala Lumpur.
19 Aug.,	1908.	Freeman, D., c/o Messrs. Freeman and Madge, Kuala Lumpur.
27 Jan.,	1910.	*Frost, Meadows, Batu Gajah, K. Perak.
14 Aug.,	1912.	Gallagher, W. J., General Rubber Co., Medan Sumatra.
19 March,	1919.	Gallien, Capt. R. G., Miri, Sarawak.
23 Jan.,	1903.	†Galloway, Dr. D. J., British Dispensary Singapore. (Vice-President, 1906—1907; President, 1908—1913; Hon. Member, 1917).
26 Oct.,	1917.	Garnier, Rev. Keppel, Penang.
26 May,	1897.	*Gerini, Lt.-Col. G. E.
8 Sept.,	1903.	Gibson, W. S., High Court, Kedah.
28 May,	1902.	*Gimlette, Dr. J. D., Kota Baharu, Kelantan.
4 Jan.,	1916.	Glennie, Dr. J. A. R., Municipal Offices, Singapore.
12 Feb.,	1918.	Gloyne, G. B., Samarang, Java.
		Goldie, R. M., Vade & Co., Singapore.
21 Sept.,	1916.	Goodman, A. M., Penang.
18 March,	1909.	Goulding, R. R., Survey Department, Kuala Lumpur.

7 Aug.,	1919.	Gow, G. Aubrey, Lebong Tandai, Benkoelen, Sumatra.
17 Feb.,	1918.	Graham, Major A. McD., Ipoh, Perak.
27 Jan.,	1910.	Gray, N. T., c/o Director of Public Works, Kuala Lumpur.
14 Sept.,	1911.	Griffiths, J., Superintendent of Surveys, Johore Baharu.
10 Aug.,	1918.	Griffin, N. A. M., S. S. Police, Singapore.
7 Aug.,	1919.	Grist, D. H., c/o Director of Agriculture, K. Lumpur.
13 Jan.,	1916.	Gupta, Shiva Prasad, Nandansahu Street, Benares City, United Provinces, India.
15 July,	1907.	Hall, Hon. Mr. G. A., Penang.
5 May,	1914.	Hall, J. D., Singapore.
10 Aug.,	1918.	Hallaway, J. P., Gas Engineer, Singapore.
26 Jan.,	1911.	Hallifax, F. J., Alor Star.
12 April,	1915.	Hamilton, A. W., Central Police Office, Penang.
17 July,	1918.	Hampshire, Hon. Mr. A. K E., Kuala Lumpur.
16 March,	1911.	Handy, Dr. J. M., St. Mary's Dispensary, 75, Hill Street, Singapore.
11 Sept.,	1895.	Hanitsch, Dr. R., 99, Woodstock Road, Oxford, England. (Council, 1897, 1907-1909: Hon. Treasurer, 1898-1906, 1910-1911, 1914-1919: Hon. Secretary, 1912-1913).
3 June,	1909.	Harrington, A. G., Municipal Offices Singapore.
7 Aug.,	1919.	Hay, M. C., c/o Fed. Secretariat Kuala Lumpur.
5 Jan.,	1904.	*Haynes, A. S., Secretary to High Commissioner, Singapore.
24 June,	1909.	Hennings, W. G., c/o Messrs. Mansfield & Co., Singapore.
26 Oct.,	1917.	Hereford, G. A., Penang.
6 June,	1910.	Hewan, E. D., c/o Messrs. Boustead & Co., Singapore.
—	1878.	Hill, E. C., The Manor House, Normandy near Guildford, England.
12 Feb.,	1918.	Hill, P. R., c/o The Union Bank of Australia, Sydney, N. S. W. Australia.
26 Oct.,	1917.	*Hose, Dr. C. Redleaf, Riddledown Road, Purley Surrey.
22 Nov.,	1897.	Hose, E. S., Singapore.
A founder,	1878.	†Hose, Rt. Rev. Bishop G. F., Wyke Vicarage, Normandy near Guildford, England. (Vice-President, 1890-1892: President, 1894-1907).
7 Oct.,	1891.	Hoynck van Papendrecht, P. C., 7, Sweelinckstraat, The Hague, Holland.
20 Oct.,	1909.	Hubback, T. R., Kuala Lipis, Pahang.
20 Oct.,	1909.	Hughes, J. W. W., Kota Baharu, Kelantan.
15 July,	1907.	Humphreys, J. L., Trengganu.

21 Sept.,	1916.	James, Hon. Mr. F. S., C.M.G., Chief Secretary, Kuala Lumpur.
12 Feb.,	1918.	James, D., Banjermasin, Dutch Borneo.
27 Jan.,	1910.	Jamieson, Dr. T. Hill, 4, Bishop Street, Penang.
26 March,	1907.	Janion, E. M., 5, Grace Church Street, London, E. C. 3.
10 Aug.,	1918.	Jansen, P., T. Pzn. Lebong Tandai, Post Ketaun, Benkoelen, Sumatra.
10 Aug.,	1918.	Jeavons, F. Clyde, Sione Estate, Batu Caves, Selangor.
1 Dec.,	1911.	Jelf, A. S., Civil Service, Kuala Lumpur.
—	1910.	Johnson, B. G. H., Telok Anson.
15 June,	1911.	Johnson, Hon. H. S. B., Limbang, viâ Labuan.
12 Feb.,	1918.	Jones, E. P., Fleet Paymaster, Fort Canning, Singapore.
27 Jan.,	1910.	Jones, H. W., c/o Fed. Secretariat, K. Lumpur.
17 Feb.,	1913.	Jones, S. W., Kuala Lipis.
26 May,	1912.	Jones, Wyndham, Miri, Sarawak.
16 April,	1912.	Jones, W. R.
17 Aug.,	1919.	*Jordon, A. B., c/o Crown Agents.
21 Sept.,	1916.	Kamaraizaman, Raja, bin Raja Mansur, Tapah, Perak.
10 Feb.,	1916.	Kellagher, G. B., 50, Greenvale Road, Eltham, London, S. E. 9.
3 June,	1909.	Kemp, Hon. Mr. W. Lowther, c/o Messrs. F. W. Barker and Co., Singapore.
13 Jan.,	1913.	Kempe, John Erskine, Pekan, Pahang.
26 Feb.,	1920.	King, E. M., Damansara, Klang.
23 May,	1906.	Kinsey, W. E., Forest House, Seremban.
27 Jan.,	1910.	Kirk, Dr. J., Penang.
29 Jan.,	1900.	Kloss, C. Boden, The Museum, Kuala Lumpur. (Council, 1904-1908).
12 April,	1915.	Knight, Valentine, Raffles Museum, Singapore.
16 Feb.,	1914.	Lambourne, J., Castleton Estate, Telok Anson, Perak.
5 May,	1914.	Laville, L. V. T., Kelantan.
28 May,	1902.	†Lawes, Rev. W. G., Port Moresby, New Guinea.
5 Oct.,	1906.	Lawrence, A. E., Kuching, Sarawak.
29 Sept.,	1913.	Leicester, Dr. W. S., Kuantan.
22 March,	1917.	Lemberger, V. V., c/o United Engineers, Ltd., Singapore.
28 March,	1894.	*Lemon, Hon. A. H., C.M.G., Kuala Lumpur. (Vice-President, 1916-18).
30 May,	1890.	Lewis, J. E. A., B. A., $\frac{1}{699}$, Harada Mura, Kobe, Japan.
16 Aug.,	1915.	Lewton-Brain, L., Director of Agriculture, Kuala Lumpur.
20 May,	1897.	Lim Boon Keng, Hon. Dr. M.D., c/o The Dispensary, Singapore.
12 April,	1915.	Lim Cheng Law, Millview, Penang.

17 July,	1918.	Loh Kong Imm, Sepang-Tanah Merah Estate, Sepang, Selangor.
16 Feb.,	1914.	Lornie, Hon. Mr. J., Land Office, Singapore.
8 June,	1909.	Low, H. A., c/o Messrs. Adamson, Gilffillan and Co., Penang.
7 Oct.,	1918.	Lucy, Dr. S. H. R., P. C. M. O., Singapore.
26 June,	1907.	Lyons, Rev. E. S., 82, Isla de Romero, Manila.
10 Aug.,	1918.	Macalister, Dr. G. H., Medical School, Singapore.
3 June,	1909.	McArthur, M. S. H., Alor Star, Kedah.
23 Sept.,	1897.	McCausland, C. F., Port Dickson.
25 Feb.,	1910.	*MacFadyen, Eric, c/o Sports Club, London.
26 Feb.,	1920.	McIver, Miss Agnes, Kuala Lumpur.
26 Feb.,	1920.	Mackie, Vivian, Kuala Lumpur.
1 April,	1910.	MacLean, L. c/o Crown Agents.
17 July,	1918.	Madge, Raymond, Kuala Lumpur.
21 April,	1904.	Mahomed, Hon. Dato, bin Mahbob, Johore Baharu, Johore.
8 Sept.,	1903.	Makepeace, W., c/o Singapore Free Press, Singapore. (Council, 1914-1916: Hon. Librarian, 1910-1912: Hon. Treasurer, 1909; Vice-President, 1917; Hon. Secretary, 1918-20).
15 April,	1908.	Main, T. W. Cheng Estate, Malacca.
10 Feb.,	1916.	Mann, W. E., Chinese English School, Samarang, Java.
12 Feb.,	1902.	Marriott, H., Singapore. (Council, 1907-1908, 1910-1913, 1915-1918; Vice President for Singapore.
24 June,	1909.	Marsh, F. E., Municipal Offices, Singapore.
26 Feb.,	1920.	Marsh, W., Municipality, Singapore.
12 May,	1909.	Marshall, Harold B., Bintang Estates, c/o Messrs. F. W. Barker & Co., Singapore.
15 July,	1907.	*Marriner, J. T., Kuantan, Pahang.
25 July,	1918.	Martin, T. A., Planters' Loan Board, Kuala Lumpur.
5 Nov.,	1903.	Maxwell, Hon. Mr. W. G., C.M.G., Taiping, Perak. (Council, 1905, 1915: Vice-President, 1916—1918; President, 1919).
16 Dec.,	1909.	May, C. G., Deputy Colonial Engineer, Penang.
16 Feb.,	1914.	Mead, J. P., Forest Dept., Kuching, Sarawak.
26 Feb.,	1920.	Millar, J. W. R., Port Dickson.
7 Feb.,	1910.	Miller, T. C. B., Fairlie, Nassim Road, Singapore.
29 Sept.,	1913.	Mollett, H. B., Ipoh, Perak.
27 Jan.,	1919.	Morrison, Library, Mitsubishi Building, No. 26, Marunonchi, Tokyo, Japan.
8 Sept.,	1909.	*Moulton, Major J. C., Singapore. (Council, 1918-9).
11 Oct.,	1915.	*Mundell, H. D., c/o Messrs. Sisson and Delay, Singapore.
26 Feb.,	1920.	Murison, Hon. Sir J. W., Singapore.

17 Feb.,	1913.	Murray, Rev. W., M.A., 1, Gilstead Road, Singapore.
22 March,	1917.	Nagle, Rev. J. S., M.A., Singapore.
8 Sept.,	1909.	Nathan, J. E., c/o Crown Agents, London.
25 Feb.,	1910.	Niven, W. G., 11, Derby Crescent, Kelvinside, Glasgow, Great Britain.
9 May,	1900.	Norman, Henry, Johore Bahru.
5 Jan.,	1906.	Nunn, B., c/o Crown Agents.
26 Jan.,	1911.	O'May, J., c/o Barker & Co., Singapore.
10 Feb.,	1916.	Ong Boon Tat, 29, South Canal Street, Singapore.
26 Feb.,	1920.	O'Sullivan, E. A., Raffles Institution, Singapore.
17 Feb.,	1913.	Overbeck, H., Holdsworthy, Liverpool, N. S. W. Australia.
2 Feb.,	1914.	Panyarjun, Samahu, The Royal State Railways Dept. Standard Gauge, 196, Hluang Road, Bangkok, Siam.
2 April,	1919.	Park, Mungo, Vimy Estate, Kuang, Selangor.
27 Oct.,	1908.	Parr, Hon. Major C. W. C., Residency, Kuala Lipis, Pahang. (Vice President, F. M. S., 1919).
20 Oct.,	1909.	Peacock, W., England.
22 March,	1917.	Pears, R., c/o Messrs. F. W. Barker & Co., Singapore.
4 Jan.,	1910.	Peirce, R., Glasgow.
5 May,	1914.	Pepys, W. E., c/o Crown Agents.
—	1878.	†Perham, the Ven. Archdeacon J., Chard, Somerset, England.
26 Oct.,	1917.	Perkins, D. Y., Drew and Napier, Singapore.
26 Feb.,	1920.	Peskett, A. D., Bode Estate, Sandakan, B. N. B.
25 Feb.,	1910.	Pratt, Capt. E., Ipoh.
22 Jan.,	1912.	Price, William Robert, B.A., F.L.S., Pen Moel, Chepstow, England.
22 March,	1906.	Pringle, R. D., The Y. M. C. A. Headquarters, London.
5 Oct.,	1906.	Pykett, Rev. G. F., M. E. Mission, Penang.
3 May,	1915.	Raggi, J. G., Phlab Phla Jai Road, Bangkok, Siam.
21 Aug.,	1917.	Rattray, Dr. M., 10, Riverside, Malacca.
10 Feb.,	1916.	Rayman, L., c/o Fed. Secretariat, K. Lumpur.
27 Jan.,	1910.	*Reid, Dr. Alfred, c/o Principal Med. Officer, Kuala Lumpur.
27 Jan.,	1910.	Reid, Alex., c/o Messrs. McAlister and Co., Singapore.
20 Oct.,	1909.	Richard, D. S., Colonial Secretariat, Singapore.
15 June,	1911.	Richards, R. M., The Caledonia Estate, Province Wellesley.
18 April,	1918.	Ritchie, C., The Sagga Rubber Estate, Siliau, F. M. S.

27 Jan.,	1890.	†Ridley. H. N., c.m.g., f.r.s., 7, Cumberland Road, Kew Gardens, Surrey, England. (Council, 1894-1895: Hon. Secretary, 1890-1893, 1897-1911: Hon. Member, 1912).
26 Oct.,	1917.	Ridout, H. E. Major-General D. H., c.m.g., General Officer Commanding, S. S.
14 Sept.,	1911.	Robertson, G. H. M.
14 Aug.,	1912.	Robertson, J., c/o Messrs. Guthrie and Co., Singapore.
16 March,	1911.	Robinson, H., c/o Messrs. Swan and Maclaren, Singapore. (Council, 1916-19).
17 March,	1904.	Robinson, H. C., The Museum, Kuala Lumpur. (Vice-President, 1909; 1913).
10 Feb.,	1916.	Rogers, A., Public Works Department, Penang.
22 Jan.,	1896.	Rostados, E., Lunas, South Kedah. (Council, 1901).
1 March,	1897.	*Rowland, W. R.
12 Feb.,	1918.	Russell, P. C., Swan and Maclaren, Singapore.
7 April,	1909.	Sanderson, Mrs. R.
7 Aug.,	1919.	Santry, Denis, Swan and Maclaren, Singapore.
10 Feb.,	1916.	†Sarawak, His Highness The Raja of, Kuching, Sarawak.
—	1885.	†Satow, Sir Ernest M., Beaumont, Ottery St. Mary, Devon, England.
22 Jan.,	1896.	Saunders, Hon. C. J., Singapore. (Vice-President, 1910-1911, 1914-1915: President, 1916-1918).
26 Feb.,	1920.	Schorff, Dr. J. W., Tampin, N. S.
26 Feb.,	1920.	Schorff, Mrs. Ketty Dorothy, Tampin, N. S.
17 March,	1904.	Schwabe, E. M., Cheras Estate, Kajang, Selangor.
26 Feb.,	1920.	Scott, Dr. G. Waugh, Sungei Siput, Perak.
27 Jan.,	1910.	Scott, R., Malacca.
5 Oct.,	1906.	Scrivenor, J. B., Govt-Geologist, Batu Gajah.
26 March,	1888.	Seah Liang Seah, c/o Chop Chin Hin, Singapore.
12 April,	1915.	*See Tiong Wah, c/o Hongkong and Shanghai Bank, Singapore.
12 Feb.,	1918.	Sennett, C. W. A., Kuala Lumpur.
30 Jan.,	1894.	Shellabear, Rev. Dr. W. G., d.d., c/o Board of Foreign Missions, 150, Fifth Avenue, New York City, U. S. A. (Council, 1896-1901, 1904: Vice-President, 1913: President, 1914-1915).
3 June,	1909.	Sims, W. A., c/o Commercial Union Assurance Co., Singapore.
22 March,	1917.	Shillitoe, G., Kuantan, Pahang.
20 May,	1912.	Smith, Prof. Harrison W., Massachusetts Institution of Technology, Boston, Mass., U.S.A.
26 Feb.,	1920.	Soh Yiew Jin, Singapore.

27 Jan.,	1910.	Song Ong Siang, M.A., L.L.M., c/o Messrs. Aitken and Ong Siang, Singapore.
17 July,	1918.	Stanton, Dr. A. T., Kuala Lumpur.
10 Nov.,	1909.	Steadman, V., c/o Messrs. Swan and Maclaren, 5, Raffles Place, Singapore.
24 May,	1910.	Steedman, R. S.
27 Jan.,	1910.	Still, A. W., c/o Straits Times, Singapore. (Council, 1914-1915).
13 Feb.,	1917.	*Stirling, W. G., c/o Food Controller, Singapore.
3 May,	1915.	Strickland, Dr. C.
14 Sept.,	1911.	Stuart, E. A. G., Alor Star, Kedah.
24 May,	1910.	Sturrock, A. J., c/o Crown Agents.
22 March,	1917.	Sumner, H. L., Inspector of Schools, Taiping, Perak.
26 Oct.,	1917.	Swan, W. L., Pondok Tanjong, Perak.
22 Jan.,	1912.	Swayne, J. C., Bintulu, Sarawak.
12 Feb.,	1918.	Sykes, G. R., Chinese Protectorate, Singapore.
4 June,	1908.	Tan Cheng Lock, 59, Heeren Street, Malacca.
16 June,	1913.	Taylor, Lt. Clarence J., Telok Manggis Estate, Sepang, Selangor.
26 Oct.,	1917.	Tennent, M. B., Eliot Vale House, Blackheath, London.
14 Aug.,	1914.	Tracy, F. D., c/o The Standard Oil Co. of New York, U. S. A.
23 Aug.,	1918.	Uda, Raja, Kuala Pilah, N. S.
18 April,	1918.	Valpy, G. C., Official Assignee's Office, Singapore.
14 Aug..	1887.	van Beuningen van Helsdingen, Dr. R., 484/2, Bukit Timah Road, Singapore. (Hon. Librarian, 1914-1915).
3 June,	1909.	Ward, Hon. A. B., Kuching, Sarawak.
26 Feb.,	1920.	Warner, W. H. Lee, Singapore.
10 Feb.,	1916.	Watkins, Mrs. Legrew, c/o Messrs. Watkins & Co., Singapore.
21 Aug.,	1917.	Watson, J., c/o Crown Agents.
13 Jan.,	1916.	Watson, J. G., Forest Department, Kuala Lumpur.
18 Oct.,	1916.	Watson, Dr. Malcolm, Klang, Selangor.
27 Jan.,	1910.	Weld, F. J., c/o Crown Agents, Whitehall Gardens, London.
15 July,	1907.	Welham, H., c/o The Straits Echo, Penang.
27 Jan.,	1910.	Whitehead, C. B., Police Office, Butterworth, Province Wellesley.
27 Jan.,	1910.	Williams, S. G., Municipal Offices, Singapore.
7 Aug.,	1919.	Wilson, F. K., Kuala Krai, Kelantan.
27 Jan.,	1910.	*Winkelmann, H., Malacca Street, Singapore.
24 Nov.,	1904.	Winstedt, R. O., (Vice-President, F. M. S., 1914-1916; S'pore. 1920), Singapore.
13 Nov.,	1918.	Wolde, B., Teluk Piah Estate, Kuala Selangor.
25 Feb.,	1910.	Wolferstan, L. E. P., The Residency, Malacca.

28 May,	1902.	Wolff, E. C. H., The Secretariat, Singapore.
4 June,	1908.	*Wood, E. G., c/o Henry S. King & Co., London.
16 June,	1913.	Wood, W. L., Pontian (Malay) Rubber Co., Ltd., Sedenak, Johore.
26 Feb.,	1920.	Woolley, G. C., Sandakan, B. N. B.
14 Sept.,	1911.	Worsley-Taylor, F. E., c/o Messrs. Vade and Co., Singapore.
12 April,	1915.	*Worthington, A. F., Kota Baharu, Kelantan.
5 May,	1914.	Wyley, A. J., Lebong Tandai, Benkoelen, Sumatra.
26 Oct.,	1917.	Yates, Major W. G., West Kent Regiment, Tanglin Barracks, Singapore.
26 April,	1916.	Young, E. Stuart, Kinarut Estate, via Jesselton, B. N. B.
24 Nov.,	1904.	*Young, H. S., Bau, Sarawak.
26 Feb.,	1920.	Zainal Abidin bin Ahmad, Malay College, Kuala Kangsar.

Members are particularly requested to inform the Hon. Secretary of any changes in their description or address.

RULES

of the Straits Branch

of the

Royal Asiatic Society.

I. Name and Objects.

1. The name of the Society shall be 'The Straits Branch of the Royal Asiatic Society.'

2. The objects of the Society shall be:—

(a) The increase and diffusion of knowledge concerning British Malaya and the neighbouring countries.

(b) the publication of a Journal and of works and maps.

(c) the formation of a library of books and maps.

II. Membership.

3. Members shall be of three kinds—Ordinary, Corresponding and Honorary.

4. Candidates for ordinary membership shall be proposed and seconded by members and elected by a majority of the Council.

5. Ordinary members shall pay an annual subscription of $5 payable in advance on the first of January in each year. Members shall be allowed to compound for life membership by a payment of $50..

6. On or about the 30th of June in each year the Honorary Treasurer shall prepare and submit to the Council a list of those members whose subscriptions for the current year remain unpaid. Such members shall be deemed to be suspended from membership until their subscriptions have been paid, and in default of payment within two years shall be deemed to have resigned their membership.

No member shall receive a copy of the Journal or other publications of the Society until his subscription for the current year has been paid.

7. Distinguished persons, and persons who have rendered notable service to the Society may on the recommendation of the Council be elected Honorary members by a majority at a General meeting. Corresponding Members may, on the recommendation of two members of the Council, be elected by a majority of the Council, in recognition of services rendered to any scientific institution in British Malaya. They shall pay no subscription: they shall enjoy the privileges of members except a vote at meetings, eligibility for office and free receipt of the Society's publications.

III. Officers.

8. The officers of the Society shall be:—
A President.

Three Vice-Presidents, resident in Singapore, Penang and Federated Malay States respectively.

An Honorary Treasurer. An Honorary Librarian.

An Honorary Secretary. Four Councillors.

These officers shall be elected for one year at the Annual General Meeting, and shall hold office until their successors are appointed.

IV. Council.

9. Vacancies in the above offices occurring during any year shall be filled by a vote of majority of the remaining officers.

10. The Council of the Society shall be composed of the officers for the current year, and its duties and powers shall be:—

(a) to administer the affairs, property and trusts of the Society.

(b) to elect ordinary and correspondnig members and to recommend candidates for election as Honorary members of the Society.

(c) to obtain and select material for publication in the Journal and to supervise the printing and distribution of the Journal.

(d) to authorise the publication of works and maps at the expense of the Society otherwise than in the Journal.

(e) to select and purchase books and maps for the Library.

(f) to accept or decline donations on behalf of the Society.

(g) to present to the Annual General Meeting at the expiration of their term of office a report of the proceedings and condition of the Society.

(h) to make and enforce bye-laws and regulations for the proper conduct of the affairs of the Society. Every such bye-law or regulation shall be published in the Journal.

11. The Council shall meet for the transaction of business once a month and often if necessary. Three officers shall from a quorum of the Council.

V. General Meetings.

12. One week's notice of all meetings shall be given and of the subjects to be discussed or dealt with.

13. At all meetings the Chairman shall in the case of an equality of votes be entitled to a casting vote in addition to his own.

14. The Annual General Meeting shall be held in February in each year. Eleven members shall form a quorum.

15. (i) At the Annual General Meeting the Council shall present a Report for the preceding year and the Treasurer shall render an account of the financial condition of the Society. Copies of such Report and account shall be circulated to members with the notice calling the meeting.

(ii) Officers for the current year shall also be chosen.

16. The Council may summon a General Meeting at any time, and shall so summon one upon receipt by the Secretary of a written requisition signed by five ordinary members desiring to submit any specified resolution to such meeting. Seven members shall form a quorum at any such meeting.

17. Visitors may be admitted to any meeting at the discretion of the Chairman but shall not be allowed to address the meeting except by invitation of the Chairman.

VI. Publications.

18. The Journal shall be published at least twice in each year, and oftener if material is available. It shall contain material approved by the Council. In the first number in each year shall be published the Report of the Council, the account of the financial position of the Society, a list of members, the Rules, and a list of the publications received by the Society during the preceding year

19. Every member shall be entitled to one copy of the Journal, which shall be sent free by post. Copies may be presented by the Council to other Societies or to distinguished individuals, and the remaining copies shall be sold at such prices as the Council shall from time to time direct.

20. Twenty-five copies of each paper published in the Journal shall be placed at the disposal of the author.

VII. Amendments to Rules.

21. Amendments to these Rules must be proposed in writing to the Council, who shall submit them to a General Meeting duly summoned to consider them. If passed at such General Meeting they shall come into force upon confirmation at a subsequent General Meeting or at an Annual General Meeting.

Affiliation Privileges of Members.

Royal Asiatic Society. The Royal Asiatic Society has its headquarters at 74, Grosvenor Street, London, W. I., where it has a large library of books, and MSS. relating to Oriental subjects, and holds monthly meetings from November to June (inclusive) which papers on such subjects are read.

2. By rule 105 of this Society all the Members of Branch Societies are entitled when on furlough or otherwise temporarily resident within Great Britain, and Ireland, to the use of the Library as Non-Resident Members and to attend the ordinary monthly meetings of this Society. This Society accordingly invites Members of Branch Societies temporarily resident in Great Britain or Ireland to avail themselves of these facilities and to make their home addresses known to the Secretary so that notice of the meetings may be sent to them.

3. Under rule 84, the Council of the Society is able to accept contributions to its Journal from Members of Branch Societies, and other persons interested in Oriental Research, of original articles, short notes, etc., on matters connected with the languages, archæology, history, beliefs and customs of any part of Asia.

4. By virtue of the afore-mentioned Rule 105 all Members of Branch Societies are entitled to apply for election to the Society without the formality of nomination. They should apply in writing to the Secretary, stating their names and addresses, and mentioning the Branch Society to which they belong. Election is by the Society upon the recommendation of the Council.

5. The subscription for Non-Resident Members of the Society is 30/- per annum. They receive the quarterly journal post free.

Asiatic Society of Bengal. Members of the Straits Branch of the Royal Asiatic Society, by a letter received in 1903, are accorded the privilege of admission to the monthly meetings of the Asiatic Society of Bengal, which are held usually at the Society's house, 1 Park Street, Calcutta.

⁂

2. By rule 105 of this Society all the Members of Branch Societies are entitled when on furlough or otherwise temporarily resident within Great Britain, and Ireland, to the use of the Library as Non-Resident Members and to attend the ordinary monthly meetings of this Society. This Society accordingly invites Members of Branch Societies temporarily resident in Great Britain or Ireland to avail themselves of these facilities and to make their home addresses known to the Secretary so that notice of the meetings may be sent to them.

3. Under rule 84, the Council of the Society is able to accept contributions to its Journal from Members of Branch Societies, and other persons interested in Oriental Research, of original articles, short notes, etc., on matters connected with the languages, archæology, history, beliefs and customs of any part of Asia.

4. By virtue of the afore-mentioned Rule 105 all Members of Branch Societies are entitled to apply for election to the Society without the formality of nomination. They should apply in writing to the Secretary, stating their names and addresses, and mentioning the Branch Society to which they belong. Election is by the Society upon the recommendation of the Council.

5. The subscription for Non-Resident Members of the Society is 30/- per annum. They receive the quarterly journal post free.

Asiatic Society of Bengal. Members of the Straits Branch of the Royal Asiatic Society, by a letter received in 1903, are accorded the privilege of admission to the monthly meetings of the Asiatic Society of Bengal, which are held usually at the Society's house, 1 Park Street, Calcutta.

⁂

A Curious Kelantan Charm.

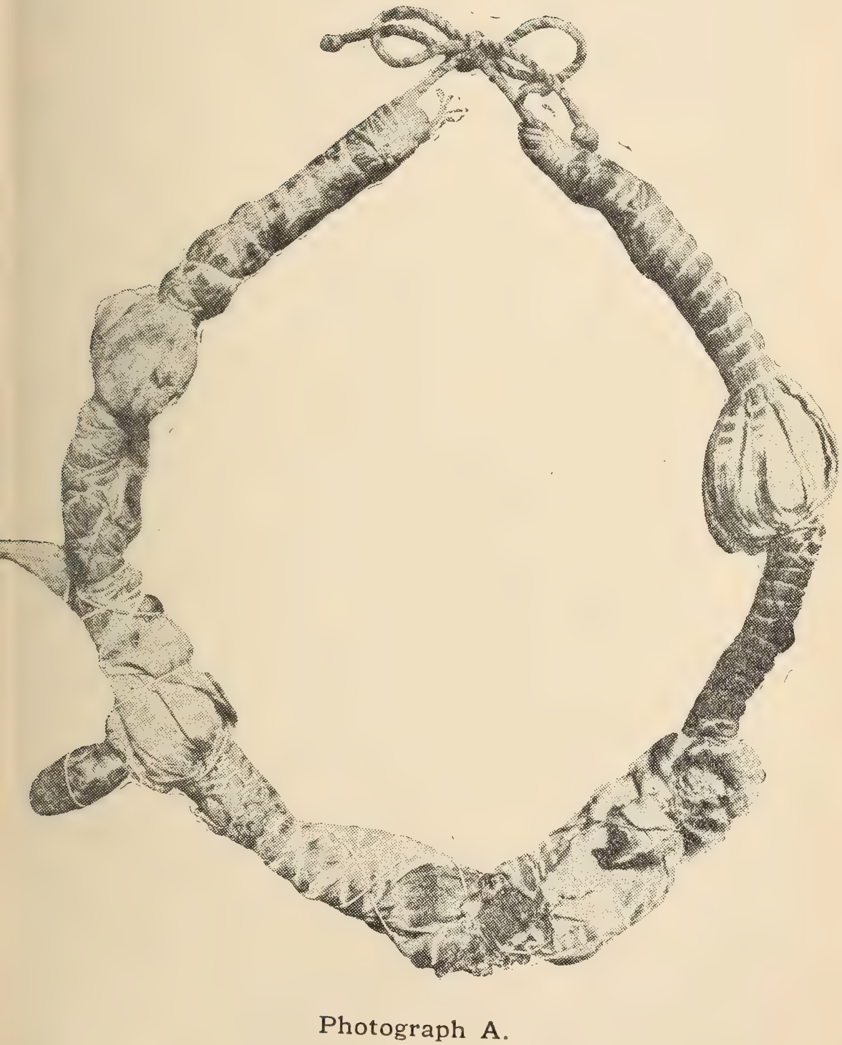
By J. D. Gimlette.

Last year Chief Inspector Jackson gave me a rudely fashioned belt which had been found by the Kelantan Police on the body of a Malay robber, stabbed to death in 1917, in the district of Bacho'. It was tied round the dead man's waist concealed in the folds of his *sarong*. I am indebted to Captain H. A., Anderson, the Chief Police Officer of Kelantan, for access to the case file. The history is briefly as follows. Ĕnche' Mah binti Ĕnche' Mun heard a noise about 1.30 a.m., on 26.5.1917, as if a robber was breaking through the wall of her house (*orang buka buchu dinding*). She was frightened and roused her husband Awang Tanda bin Salleh. He seized a spear and stabbed a man who was about to enter their bed room. The robber ran a short distance and fell dead; he was a Kelantan Malay unknown to anyone in the seaside district of Bacho' or to anyone in the village of Pauh where the trajedy occurred. Awang Tanda had stabbed him between the ribs.

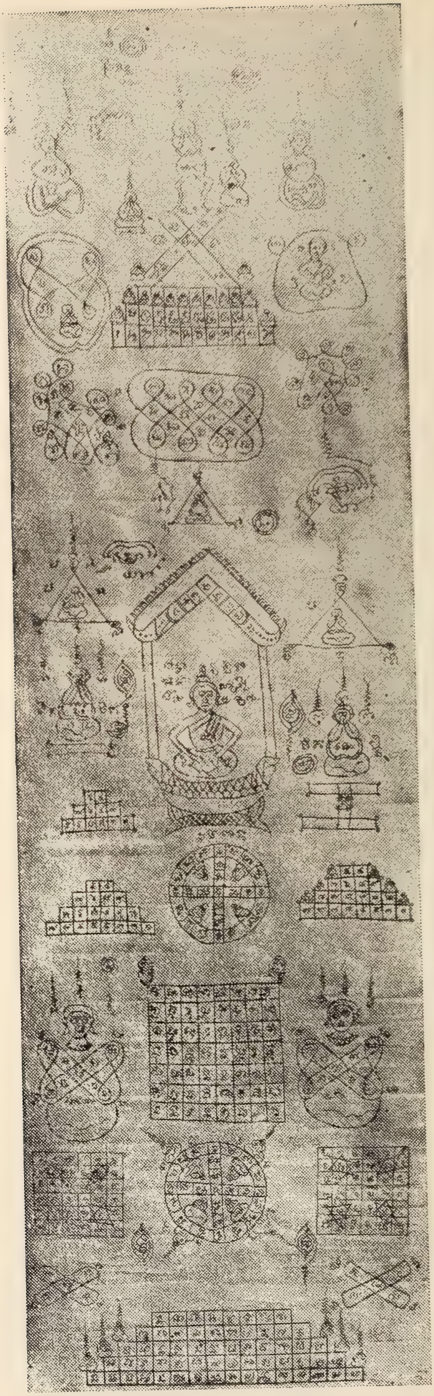
Photograph (A), recently taken in Kota Baharu, shows the general appearance of the robber's belt before it was taken to pieces. It was a girdle made of two stout cords about four feet long, twisted together and knitted in the centre, to make a small pouch which seems to have originally contained a white stone. The pouch had been cut open before the belt came into my possession and was empty; the cord on either side of it was strengthened by an extra strand of twisted cord, to the extent of about five inches on each side. This part of the girdle was worn behind and a strip of orange coloured calico, such as that worn by Siamese priests, dyed by means of a decoction of the heart of the Jack-tree (Artocarpus integrifolia, Linn., Urticaceae), was twisted round this central part of the belt making a kind of bundle.

Inside this yellow bundle were a wild boar's tusk; a smooth, round, slate-coloured stone, about as large as a small coin (*pitis*); a tuft of hair (*chĕmara babi*) said to have come from the neck of a wild boar, and one small oval-shaped, dark-speckled stone. The pig's tusk was originally wrapped in the cloth, not projecting as shown in the photograph: both it and the other talismans were made secure by means of twine bound round the cloth wherever necessary. An outer covering of dirty white calico about five feet in length and half a foot in breadth, strengthened at regular intervals by means of bindings of string, was wrapped round the whole belt except for a length of cord, free on either side, to tie in front.

A small fragment of bright metal, not heavy enough to be of value, and closely resembling on fracture a spur of copper pyrites, was found carefully wrapped in a scrap of plain white cloth, as



Photograph A.



Photograph B.

well as a rough, oval, grey-coloured stone, which was protected in the same way. Both of these were found in the folds of the long strip of white cloth, the inner surface of which was covered from top to bottom with Siamese drawings, letters, and numerals. A reproduction, taken from a tracing of the original design, is shown in photograph (B). Although the belt (*pakaian*) is described above as being rudely fashioned, both the inside yellow covering and the outside covering of white cloth were really very neatly twisted and strongly bound; the various talismans being secured by means of twine in the folds of the cloth, so implying that they must have been of value to the owner. Unfortunately two other stones or talismans had been cut out and stolen after the exhibit had been produced in Court and Awang Tanda acquitted.

At the time of the trial in 1917, the charm was described by the Kelantan Malay Police as an amulet connected with thieves, (*azimat lazim di-pakai oleh pĕnchuri-pĕnchuri*) and it is stated by them, to contain both *batu guliga* and *batu ular* as well as the tuft of hair from the pig. The mention of *batu ular* is of interest because *batu ular* is the stone that is supposed to be vomited by the snake and to possess luminous qualities. None of the stones that were found in the belt correspond however, in weight or size or colour with the usual conception of the bezoar stone, a calculus found sometimes inside small land animals, trees and more rarely in arachnida, (sic.); they seem, by common consent, to be merely polished pebbles from a river bed. None of them give a yellow reaction to the native test for *guliga* by rubbing with lime (*kapur*).

The Police Magistrate, Tĕngku Hassan, (son-in-law to H. H. the Sultan of Kelantan), remarks in his notes that Kelantan yokels describe the charm as *buntat*, (petrified stones found in the bodies of animals supposed to contain, but not always, talismanic properties). One witness said that such a charm would protect the skin of the wearer from hurt or harm by any sort of weapon; that some think *chĕmara babi* to be very useful to burglars because it keeps people in a sound sleep, (*sekot*); while others say that *chĕmara babi* is invaluable because, if the wild pig should attempt to gore the wearer, it would not be able to wound him. The Magistrate ends his notes by remarking that many old men surmise that a charm of this nature will protect our skins; it will make people afraid of us and make us daring. Tĕngku Hassan writes in conclusion that he himself has never seen any information about a charm of this kind in any of the original Malay books on charms and medicines for charms.

The chief interest of this curious belt seems to centre on the hair of the wild pig (*chĕmara babi*). Superstitions about the wild boar (Sus cristatus), mentioned by Skeat in "Malay Magic," p. 188, are fully believed in by the Kelantan people; they do not seem however to recognize the fable of the "wild boar's chain", but pin their faith on a kind of hair necklace which they say the boar is very particular about keeping clean. A lucky man may find it near a jungle pig's wallow, when the beast has taken it off for the purpose of bathing. It is not necessarily searched for by bad people and worn only by criminals. I have recently had an opportunity of examining two of the *chĕmara babi* charms in Kota Baharu; they are identical in appearance and consist of small bundles of stiff, dark fibres, apparently obtained from a palm such as the palmyra or perhaps the coco-nut tree. About thirty fibres were tied together with cotton in one instance, forming a bundle about fifteen inches in length; this was enclosed in a small red bag made of cloth and valued at more than fifty dollars. It is essential that the *chĕmara babi* be obtained from a live boar and kept alive. It is kept alive by first washing it with *bĕluru,* the stem of a very large, local *liane* used by Kelantan men and women for washing their hair, (Entada scandens, Linn., Leguminosae), and the juice of the lime fruit, (Citrus acida, Roxb., Rutaceae); then oiling with coco-nut oil and smoking for a few minutes with *kĕmĕnnyan* or benzoin, (Styrax benzoin). This is to be done every Thursday evening about the time of the hour of prayer; it should have the effect of making the *chĕmara* elastic and curly.

The tuft of hair hidden in the robber's belt and described by the police at the time as *chĕmara babi* is of quite a different character to the fibres described above. Even on casual inspection it appears from its black colour with reddish tinge, its fineness and lustre to be human hair. On dissection it was found to be a ball of hair, about two inches in diameter, very tightly rolled and sewn round a small circle of cord by means of twine passed through a piece of scalp. Further examination shows that the microscopical structure is identical with that of human hair with a similar breadth of 75 microns; this measurement is three and four times smaller than the breadth of the coarse vegetable fibres of the two true *chĕmara babi* which are 300 and 225 microns respectively. Various suggestions have been offered by Kelantan Malays as to the source of this tuft of hair. It is said that it may have come from the corpse of the first born child of first born parents, dug up by night from the grave; that it is *rambut di-jalin hantu,* or hair that has been tangled by ghosts on the head of a dying woman, or perhaps a trophy from some woman who had been scalped.

Chow Kiew, the high priest of the Siamese community in Kelantan (To' Cha), has given me some information about the Siamese letters and drawings. With good humoured contempt he said the design was not a reliable amulet such as an old man like he himself could have made, but a spurious charm made by a Siamese "witch doctor" for a few dollars. He explained that the central figure of Buddha is surrounded by an ornamental frame, and that the numerals and letters are taken from the sacred books of Siam apparently at haphazard. All the other figures are supposed to represent a child in various stages of uterine development as well as at birth. He drew particular attention to the wild boar's tusk which he declared to be solid throughout and that another like it could not be found among a thousand pigs.

REDI.

By R. H. Adams.

With reference to Mr. Winstedt's paper on "Some more Malay Words" (Journal 80, 1919, p. 136) may I suggest that *redi* "a sort of hammock-litter" is probably from the Portuguese *rede* (pronounced *raidy*) "a net"? It is the word always used in Brazil for the sleeping-hammock.

The Indian Origin of Malay Folk-Tales.

R. O. Winstedt.

In my paper on the "Folk-Tales of Indonesia and Indo-China" (Journal 76, 1917) I gave several parallels between Indian and Malay folk-tales. The more one studies the subject, the more one realizes the immense debt Malaya owes to India for folk-tales as well as for language, religion, custom, literature and general culture. I have not space here to discuss the two Malay versions of that store-house of folk-lore, the *Panchatantra*: the earlier version, mentioned by Werndly in 1736 A.D. and derived ultimately from the Persian, has been the subject of two of Brandes' invaluable papers *(Tijdschrift voor Indische Taal-Land-en Volkenkunde, Bat. Genoot.*, Deel XXXVIII p. 191 and Goeje's *Feest-Bundel*) : of the Malay version translated by Munshi Abdullah from the Tamil I have given an outline elsewhere *(Papers on Malay Subjects*, "Literature of Malay Folklore", K. Lumpur, 1907.) So I shall advert only to such tales from the *Panchatantra* as appear outside those two Malay recensions of the *Ht. Galila va Damina*, to use its Arabic name.

'PA BĔLALANG.

An outline of this Malay folk-tale is given in my "Literature of Malay Folk-Lore" (pp. 62-63) together with a full translation of two of the tales (pp. 25-27). An outline together with the whole folk-tale in Malay is printed in *Chĕrita Jĕnaka* (Winstedt and Sturrock, 2nd ed., Singapore, pp. 57-84). For every episode but two I shall here trace sources in Indian folk-lore.

(1) 'Pa Bĕlalang bids his son hide buffaloes and then gets a reward for divining their whereabouts.

This episode occurs in the *Katha Sarit Sagara,* (Tawney vol. I, p. 272) and in a Sinhalese story (Parker's "Village Folk-Tales of Ceylon," vol. I, Tale 23, pp. 179-181).

(2) ’Pa Bĕlalang discovers the thieves who stole seven chests of royal treasure, because he uttered the word *chur* “Frizzle” over the frying of seven cakes just as the seven thieves (*pĕnchuri*) came up.

This story follows the first both in the *Katha Sarit Sagara* and in the Sinhalese tale. A variant is found in Bodding’s “Folklore of the Santal Parganas,” p. 207.

(3) ’Pa Bĕlalang tells the top from the bottom of a log by putting it into water, whereupon the heavy root end sinks first.

This tale occurs in *Jataka* 546, in a Tibetan Folk-Tale (Ralston’s “Tibetan Tales” VII and VIII) and in a Laos tale (“Bulletin de l’Ecole Francaise d’Extreme-Orient,” Tome XVII, p. 114).

The incident of telling the sex of ducks recalls the Rabbinical story of how Solomon solved the puzzle set him by the Queen of Sheba to distinguish the sex of boys and girls similarly apparelled. He ordered them to wash their hands. The girls alone washed up to the elbows!

(4) The Raja catching a grass-hopper (*bĕlalang*) threatens death to ’Pa Bĕlalang unless he can divine what is in his hand. ’Pa Bĕlalang thinking of his son left fatherless blubbered his name “Bĕlalang! Bĕlalang!” and the king imagined he had divined right!

In the *Katha Sarit Sagara* it is a frog and in the Sinhalese tale (*op. cit.*, vol. I, pp. 184-5) a fire-fly and a bird on which the plot of this story turns.

The story is current in Persia (Sir J. Malcolm’s ‘Sketches of Persia’, chap. XX) and is found in Grimm and in Dasent’s “Tales from the Fjeld”:—*vide* Clouston’s “Popular Tales and Fictions”, vol. II, pp. 413-431.

MAT JANIN.

This tale is given in Malay and English in *Journal* 48, (pp. 67-71). An outline will be found in my “Literature of Malay Folk-Lore” (p. 62).

In the *Panchatantra* (Dubois) a Brahman fancies he will sell his pots of provisions, buy a she-goat, which will bear kids, and so acquire a herd; then selling the goats, buy a cow and a mare, get rich, marry and have children. He would beat his wife for neglect of her household duty. Lashing out with a stick, he breaks the pot containing his provisions. Close variants may be read in the *Hitopadesa,* in Stokes’ “Indian Fairy Tales”, p. 31, and Swynnerton’s“ Indian Nights’ Entertainment”, p. 23, in Subramaniah Pantulu’s “Folk-Lore of the Telugus”, p. 48, in O’Connor’s “Folk-Tales from Tibet”, p. 31 in Bodding’s “Folklore of the Santal Parganas”, p. 146, and also in the Arabian Nights”

(Lady Burton's ed., vol. 5, p. 388) whose subject-matter is for the most part of Indian origin, and in a Turkish version of the "Forty Viziers." The tale had reached Europe in the XIVth century. Clouston has a chapter on its wanderings in his "Popular Tales and Fictions", vol. II, pp. 432-443. He quotes Max Müller:—"It seems a startling case of longevity, that while languages have changed, while works of art have perished, while empires have risen and vanished again, this simple children's tale should have lived on and maintained its place of honour and its undisputed sway in every schoolroom of the East and every nursery of the West."

SI LUNCHAI.

This tale with an outline is printed in the *Chĕrita Jĕnaka* (pp. 85-102). An outline is also given in my "Literature of Malay Folk-Lore" (pp. 63-65).

(1) Si Lunchai is put in a sack to be drowned. He induces a Tamil merchant to take his place by declaring that he is about to be drowned for refusing to marry the king's daughter.

Numerous variants of this episode occur:—a Sinhalese (Parker op. cit., vol. III, p. 435; vol. I, p. 110), a South Indian story by Pandita Natesa Sastu ("The Indian Antiquary", vol. IV, p. 257), a Burmese (Mrs. Chan Toon's "Triumph of Love and other stories"), a tale in the "Arabian Nights" (vol. 4, p. 367). Cf. also C. Monteil's "Contes Soudanais", (p. 67) and a Sierra Leone tale in Cromise and Ward's "Cunnie Rabbit" (p. 254).

(2) Si Lunchai dresses as a Haji, goes before the king who had ordered his execution, and says that an angel had saved him from death and taken him to heaven where he had met the king's parents. "If you would see their state in heaven, build a scaffolding: by virtue of a charm I will teach, all who are not bastards can see thence into heaven". King and ministers lie and declare they can see!

In Swynnerton's "Indian Nights' Entertainment" (p. 60) a girl, who had vowed to prove that the king sometimes lied, invited him to visit a palace she had built and to see God thence; adding that he was visible only to one person at a time and only to those of legitimate birth. The ministers and the king all declare in turn they can see God, and are convicted of lying. The king marries the girl.

(3) Si Lunchai tells the king that the way to heaven is down a deep pit, where a dragon devours him! Si Lunchai succeeds to the throne.

There are South Indian parallels to this episode *viz.* Natesa Sastri's "The Story of Madana Kama Raja", p. 97 foll. and "The Indian Antiquary", (vol. XVIII, p. 120.)

MUSANG BĔRJANGGUT.

In *J. R. A. S. S. B.* No. 52 I printed with an English outline the farcical tale of *Musang Bĕrjanggut.* Apparently the first part of that tale, where the hero does foolish things which the clever peasant girl so delights him by interpreting that he marries her, finds a parallel in the Laos folk-tale *Sieu Savat* (*op. cit.,* p. 114) but M. Finot's outline is too short for one to be certain. The clever peasant-girl whose wit brings her a royal or wealthy husband is common in Oriental folk-lore:—Parker's "Village Folk-Tales of Ceylon," vol. III, pp. 112-114; Knowles' "Folk-Tales of Kashmir," 2nd ed., pp. 484 foll., Swynnerton's "Indian Nights' Entertainment" p. 315," Arabian Nights," vol. III, p. 202. The separating of mixed grain is common in folklore (Clouston, *op. cit.,* vol. I, pp. 240-241). The story proper of the wife and her lovers collected together to their confusion comes in the Sanskrit *Sukasaptati* (Wortham's "The Enchanted Parrot", London, Tale XXXIII, p. 77) and in the tale of the virtuous Upakosa in the *Katha Sarit Sagara*: a shorter version occurs in the *Hitopadesa* (Wortham's translation, London, pp. 97-8). Neither of these versions contain (*a*) the incident of the lover playing the part of a pedestal lamp, or (*b*) that of the king-lover playing hobby-house for his exacting mistress or (*c*) the entrapping of the bearded man. There is a Sinhalese tale (Parker, *op. cit.,* vol. I, pp. 222-3) containing the episode of a woman entertaining with cakes lovers, who in turn are hidden one in a loft, one on a shelf; one of the secreted lovers breaks a coconut on the bald round pate of the other as in the Malay tale. Perhaps the addition in the Malay tale that the bald pate represented the top of a human pedestal lamp is connected with the fable of the cat and the candle, which occurs in the originally Hindi tale, *Ht. Gul. Bakawali* (*vide* van Ronkel's "Le Roman de la Rose dans la litterature malaise" *Tijd, L. T. L. Vk.,* Deel LIV): with that tale is associated the search for a rose to cure the king's malady, a plot very common in Malay literature derived from Indian models and apparently parodied in the quest for a bearded civet-cat as a sovereign cure! The hobby-horse episode occurs in the *Panchatantra* (Benfey, Leipzig 1859, IV, 6) where a minister's wife makes her husband shave his head and a king's wife drives her consort with a bridle. In the longer version of the *Hikayat Bakhtiar,* (Brandes' *Tijd. T. L. Vk.,* Deel XXXVIII, p. 230 foll.) Tale 51, an Arabian vizier bids his king not devote himself to women but he himself becomes so infatuated with a girl that he plays hobby-horse for her; when the king sneers, the vizier protests that his advice was intended to save from any such ignominious infatuation:—Brandes compares a passage in the *Bustanu's-Salatin,* (van der Tuuk's "Maleisch Leesboek" 1863,

p. 34). The entrapping of the bearded lover and producing him before a prince as a captive beast is not found in the Sanskrit originals to which I here have access: it is the plot of Tale XV of the Batavian recension of the *Ht. Abu Nawas* (*J. R. A. S., S. B.* No. 81, p. 20.) Many other versions of the *Musang Bĕrjanggut* occur in addition to those mentioned: one in the Arabic text of the book of *Sindibád,* one in the 'Arabian Nights', one in the Persian tale of the 'Thousand and One Days', one in the '*Bahar-i-Danush',* one in Mary Stokes' "Indian Fairy Tales", one from Bengal (G. A. Damant's "Folklore of Bengal" Indian Antiquary, 1873). Clouston gives an outline of these versions in his chapter on "The Lady and Her Suitors" in his "Popular Tales and Fictions", vol. II, pp. 289-316. It would be interesting to know from what immediate source the composite Malay tale was derived.

A SOUND FOR A SMELL.

In *J. R. A. S., S. B.* No. 48, 1907, p. 91 Mr. Laidlaw printed the Malay story of how mouse-deer settled the claim of a rich man on a poor fellow who grew fat on the appetite got from the smell of roasting in the rich man's kitchen. He was paid by the chink of 1,000 dollars counted out behind a curtain: "a sound for a smell" was mouse-deer's decree. Exactly the same tale is found among the Laos (*Bulletin de L'Ecole Francaise d'Extreme-Orient Tome XVII,* 1917, p. 114). A tale by Rabelais (III ch. 37) is identical. Liebrecht (*Zur Volkskunde* 503) gives a Japanese recension. Many Indian variants of the same central theme exist:— *vide* "Old Deccan Days" (Frere) p. 118, "Folk-Tales of the Telugus" (Pantalu) p. 17, "Tibetan Tales" (Ralston) p. 163, all of which give tales that are a mixture of this Malay tale and the tale in *J. R. A. S., S. B.* No. 46, 1906, pp. 85-88.

In the "*Katha Sarit Sagara* or Ocean of the Streams of Somadeva", tr. from the Sanskrit by C. H. Tawney (Calcutta 2 vols. 1880-84), a rich man promises to pay a musician for singing but later protests, "You gave a short-lived pleasure to my ears and I gave a short-lived pleasure to yours by promising you money". Cf. Julien's "Contes et apologues indiens", Paris 1860, 25, La Promesse vain et le vain Son). In the *Bhisapuppha-Jataka* 392 (Francis and Thomas, 'Jataka Tales' p. 263) the Bhodisatta smells a lotus but is told by a goddess that it is larceny thus to steal perfume.

MOUSEDEER TALES.

A synopsis of Peninsular Mouse-deer Tales will be found on pp. 44-48 of my "Literature of Malay Folk-Lore". A great number of the tales occur in Indian folk-lore.

(1) Buffaloes release Crocodile whose tail has been pinned by the fall of a tree: Crocodile repays this kindness by seizing one of them by the hind-leg till Mousedeer com-

ing up pretends to disbelieve the story of the release, gets Crocodile to show his original position and shouts to the Buffaloes to drop the log on him again. (*J. R. A. S., S. B.* No. 45, 1905 and cf. Skeat's "Fables and Folk-Tales from an Eastern Forest" p. 20).

I have already referred to two Indian, a Tibetan (O'Connor's "Folk-Tales from Tibet", p. 12) and a Mon version of this tale (*J. R. A. S., S. B.* No. 76, pp. 122-3). The closest parallel is to be found in the *Panchatantra* (Dubois) and other Indian versions are Frere's "Old Deccan Days", p. 198 foll., Steel and Temple's "Wide-Awake Stories", p. 116, "Tales of the Punjab", p. 107, Stokes' "Indian Fairy Tales", p. 16, Parker (*op. cit.,* vol. III, p. 446 and 447). Hottentot and Soudanese versions also occur:—*vide* Clouston *op. cit.,* vol. I, pp. 262-265.

(2) Mousedeer is caught by a crocodile but escape by saying it is not his leg but a withered branch which has been nipped.

In Frere's "Old Deccan Days", p. 310 and Gordon's "Indian Folk-Tales" (p. 63) and in Bodding's "Folk-lore of the Santal Parganas" (p. 341) a Jackal so escapes from a Crocodile; in two Sinhalese tales (Parker, *op. cit.,* vol. I, p. 235 and 381) a turtle from a Jackal and a Jackal from a Crocodile; in Theal's "Kaffir Folk-Lore" (p. 187) a Jackal from a Lion.

(3) Mouse-deer is caught fast in a 'Tar-Baby', pretends to be dead, is thrown aside as a corpse and leaps away.

"The wonderful Tar-Baby" (J. C. Harris' "Uncle Remus") is perhaps the most remarkable instance of the insidious spread of buddhistic tales". (Jacobs' "Indian Fairy Tales" p. 251) *Vide* A. Werner's paper in "Folk-Lore" X 282, and Mrs. Rhys Davids' "Buddhist Psychology" p. 35. In *Pancavudha-Jataka* 55 the story of a young prince hitting and sticking to an adhesive goblin gives the germ of the tale. In *Sam. Nik* a monkey's limbs and head are caught in an adhesive snare.

(4) Mouse-deer is worsted in a race with King-Snail who ranging his subjects along the shore bids each in station pop up ahead of the running Mouse-deer. (Skeat *op. cit.,* p. 33 gives the story of the King-Crow and the Water-Snail and *cf.* Bezemer's "Volksdichtung aus Indonesien." p. 20).

In a Laos version of the *Panchatantra* (Part I *Nandapakarana*) an identical tale is told of how Garuda was worsted by a tortoise: in a Siamese version ("The Orientalist", vol. I, pp. 87, 88) a Turtle worsts Garuda; in a Sinhalese tale a Turtle worsts a Lion (Parker, *op. cit.*, vol. I, pp. 244-245); in "Folk-Lore of the Santal Parganas" (p. 329) ants worst an elephant; and in Milligan's "The Fetish Folk of West Africa" a chameleon beats an elephant. See also Clouston, *op. cit.*, vol. I, pp. 266-273.

(5) In Laidlaw's "A Mouse-deer Tale" (*J. R. A. S., S. B.* No. 46) mouse-deer wanting to eat a sleek sambur-deer gets tiger to pretend he is dead and while being carried a corpse for burial he jumps up and catches the deer who is one of the bearers. In *Putimamsa-Jataka* 437 (Francis and Thomas "*Jataka* Tales", p. 306) the jackal has a mock-funeral in order to capture a goat.

(6) Mouse-deer eats Tiger's share of the meat and puts bitter bark in its place.

Cf. a Sinhalese tale (Parker, vol. I, p. 211) and "Folk-tales of the Santal Parganas" (p. 338).

(7) The borrower of an axe declares he cannot return it, as it has been eaten by weevils. Mouse-deer, black with ashes, says he has been singed putting out the sea which is on fire. "An unlikely tale". says King Solomon. "Not more so than that of an axe eaten by weevils."

A parallel story occurs in the Tamil version of the *Panchatantra* (Winstedt's "Literature of Malay Folk-Lore" p. 50). In a South Indian story (Ramaswami Raju's "Indian Fables" p. 45) a horse-thief declares the missing horse was eaten by a tree to which it was tethered. The Jackal said he was tired from throwing hay into the sea to quench its flames and postponed the case. When questioned how hay could quench flames, he enquired how a tree could eat a horse.

(8) In Skeat's "Fables and Folk-Tales" p. 30 a mouse-deer induces two bulls to fight and, when one is killed, the mouse-deer feasts on the flesh after frightening away a tiger who wants to share it.

Parker (*op. cit.*, vol. III, p. 23) compares a *Jataka* tale (No. 349, vol. III, p. 100) and gives a Sinhalese version. Variants occur in Dubois' "Le Pantcha Tantra" p. 30, Tawney's *Katha Sarit Sagara,* vol. II, p. 27 and in the *Hitopadesa.*

(9) Skeat (*op. cit.* p. 45) gives a story relating how, in order to save an elephant, a mouse-deer frightened a tiger. An ape went back with the tiger, but mouse-deer shouted that he would not accept one tiger only when two had been promised, and tiger fled.

Variants occur in Wortham's "The Enchanted Parrot" (*Suka-Saptati*) Tales XLII and XLIII, in Dubois (*op. cit.*), in Small's *Tota Kahani* (p. 98), in Sinhalese (Parker, vol. I, p. 214), in a Kashmiri tale (Steel and Temple's 'Wide-Awake Stories'), in Chinese, in Tibetan (O'Connor's "Folk-Tales from Tibet" p. 76), in Baudesson's "The Mois" and there are Hottentot versions. See also Clouston *op. cit.*, vol. I, pp. 146-150.

Several of the variants include the incident of two frightened animals having their tails tied and of one of the tails breaking, as they start back in terror. The Malay version of this variation is given by Laidlaw (*J. R. A. S., S. B.* No. 48, pp. 87-89).)

(10) In Klinkert's *Hikayat Pĕlandoek Djinaka* is the tale of how mouse-deer challenges the beasts to drink up a river. In *Kaka-Jataka* 146 (Francis and Thomas p. 126) crows try to drink up the sea: Jacobs' "Indian Fairy Tales" 71 has a fable of dogs trying to drink a river dry.

(11) Klinkert's *Hikayat* also gives the tale of an Ogre haunting the River Tĕnom:—cf. the story of Badang worsting the ogre that stole his fish (*Sĕjarah Mĕlayu,* ch. 6). Stories of water-ogres guarding lakes and molesting all comers till worsted by hero prince or wily monkey occur in *Jatakas* 6, 20 and 58; in the *Mahabharata* (Dutt's tr., Calcutta, III, chs. 311-313) and in Benfey's *Pantschatantra.* The device of pretending that bonds are a cure for lumbago and so getting one's enemy to suffer himself to be bound occurs in a Sinhalese folk-tale.

What folk-tales came to the Malays early along with Sanskrit and Buddhism and Shivaism from India? and what later from India after the coming of Islam? Much comparative study will be required definitely to solve these questions.

⁂

The Founder of Old Singapore.

By R. O. Winstedt.

According to the *Sĕjarah Mĕlayu,* (Leyden's "Malay Annals," pp. 20-44) the founder of old Singapore was Sang Nila Utama. He was the grandson of Raja Suran and the son of Sang Sapurba, ruler of Minangkabau, and he had a brother Sang Maniaka. The more scholarly author of the *Bustanu's-Salatin* made Sang Sapurba, Sang Baniaka and Sang Nila Utama, three brothers, the children of Raja Suran.

It is very probable, as Blagden has suggested (J. R. A. S., S. B. No. 81), that Raja Suran represents a Chula king who was at enmity with Palembang and ravaged Palembang's subject state Kedah.

It is hardly perhaps known to English students that van der Tuuk, in his *Bataksch Leesboek, IV, pp. 115,* has robbed Singapore of its legendary founder by identifying Sang Sapurba, Sang Maniaka and Nila Utama with Suprabta, Tillottama and Menaka, three well-known nymphs (*apsaras*) of Indra's heaven, who on his orders were sent down to try the weakness of the flesh of religious ascetics. They are mentioned in a Kawi work, called *Wiwaha* (*Kawi-Studien. Arjuna-Wiwaha,* Kern. The Hague 1871). van der Tuuk thinks that the *Hikayat Nila Datia Kuacha,* included in Werndly's list of Malay works, or *Ht. Datia Nila Kuacha* as it should be called, was based on the *Wiwaha;* the Titan (*daitya*) Nilakawacha being the hero of the *Wiwaha,* against whom Indra appealed to Arjuna for help. Cf. Wilkinson's "English-Malay Dictionary" *sub* Ranjuna.

'Mena' or 'Menaka' and 'Tilottama' may be found in Dowson's "Classical Dictionary of Hindu Mythology".

⁂

The Malay Peninsula in the XVIIth & XVIIIth Centuries.

By A. Caldecott.

The following extracts from books not easily obtainable for reference out here may interest students of local history.

It is generally said that Singapore was deserted except by a few Malay fishermen from the date of its destruction in 1377 A.D. by the great Javanese kingdom of Majapahit down to the date of its second founding by Raffles in 1819. References in these extracts go to disprove quite such a sweeping statement. Moreover in 1552 it was still enough of a port of call for St. Francis Xavier to despatch from it several letters to Goa (*Monumenta Historica Societatis Jesu, Monumenta Xaveriani,* vol. I, p. 765, Madrid 1894-1914).

The Estates, Empires and principalities of the World.

Represented by ye description of Countries, manners of inhabitants, Riches of provinces, forces, Government, Religion and the Princes that have governed in every estate.

With the beginning of Militarie and Religious Orders. Translated out of French by Edw: Grimstone Sargeant at Armes.

London:
Printed by Adam Islip for Mathewe Lownes and John Bill.
1615.

OF THE ESTATE OF THE KING OF SPAINE, PP. 184-5.

THE TOWNE AND FORT OF MALACCA.

Malacca is seated upon the river of Gaza, and is a good faire Towne, having in circuite neere twentie miles. The originarie or first inhabitants of this place report, that the beginning came of six or seven fishermen of Siam, Pegu and Bengola, who built a towne, and framed a particular language, taking all the best kind of speech from other nations. They named their towne Malacca, which is growne so rich and mightie in a short time by reason of her situation, as she contends for precedence with the greatest townes, yea with some realmes thereabouts.

THE QUALITIE OF THE COUNTRIE.

The ayre is so troublesome, as not only strangers, but even they that are borne there are many times troubled with divers infirmities, which fasten chiefly to the skinne and haire: so as it is almost a miracle if any one escape with life: which makes many forbeare to goe thither: yet the desire of gaine doth incite many to hazard their healths by this voyage. The countrie yeelds not any fruit, but some little corne in certain places. Finally, all the realme of Malacca, which runs two hundred and seventie miles in length, is in a manner nothing but a desert, if you except that which is neere unto the towne. The Countrie people sleepe upon trees for feare of Tygers, whereof there are so many as they will come into the towne for a prey. The Portugals who tooke this towne from a King of the Moores, found the situation so commodious, as they have made it in a manner the center of all the merchandise and trafficke of the East, and the head of a kingdome, which extends from Sincapura to Pullo, and Cambilan; yet, as I have said, the aire is unwholesome, by reason that it lies so neere the Equinoctiall, and is hot and moist.

THE MANNER OF THE PEOPLE.

There are in this place about a hundred families of Portugals, which live after the manner of their countrie, with a Bishop, and a College of Jesuits, besides the Castell. They that are borne in this place weare long haire, they have malitious spirits, and take delight to commit murders in the night, to the end the authors may not be knowne. Both men and women make love alike, and thinke that there is not any Nation can manage it so well: they make amorous songs and rimes, and doe wonderfully commend the power of love in their verses, which are wittie, well composed, and of a good grace. They have the neatest and most elegant language of all the East: and therefore many of the Indies doe use it: as in England, Germanie, and the Low Countries they use the French tongue.

THE RICHES.

There is a staple in this towne or a Market place, with the trafficke of all the Indies, of China, and of the Islands that are called Molucques, and other neighbour islands: and there you may see many vessels from China, the Molucques, Banda, Iava, Sumatra, Siam, Pegu, Bengola, Choromandel, and other places, which returne laden with merchandise. This place yeelds great profit unto the Governor, and more than any other, except Mozambique and Ormus. Euerie yeare there parts a ship from Portugal for Malacca, a month before all the rest, and goes not to any other part of the Indies without constraint. They receive their lading only at Malaca, and have the best of all them, that come thither. There are six hundred Portugals continually in the fort of Malaca.

THE GOVERNMENT.

There was sometimes a Mahometan king at Malaca, but hee was dispossest by Alphonso of Albuquerque, for that he sought to annoy Lopes of Sequiera a Portugal all he could: so as both the towne and realme are now under the dominion of the king of

Spaine, and this realme is now governed like unto the rest which obeyes this prince. They coyne money both of gold and silver there, whereof the inhabitants before had not any use, for that they did use certaine money of Tinne, which did weigh much, and was worth little.

THE RELIGION.

The Portugals which remaine at Malaca doe all hold the Romish religion, and they that are borne in the country, whom they call Mallayes, are for the most part Christians: but there are many merchants whose aboade is sometimes long, which are of divers religions, and live at libertie. There is (as I have said) in the towne of Malaca a Bishop as at Cochin, but he is under the Archbishop of Goa.

OF THE ESTATE OF THE KING OF BRAMA OR OF PEGU, PP. 754, 755.

The realme of Siam which they also call of Sorneo is very great, and extends as well upon the East part as West, unto the sea. It lies between the Country of Couchin China and the realme of Jerme, in regard of that which lies within the land; and as for the coast, it extends from the towne of Campae unto that of Tauay, and this makes about five hundred leagues. It is true, that the Moores and Arabians have usurped almost two hundred, and hold the townes of Patane, Paam, Jor, and Pere; and the Portugals have seised upon the townes of Malaca.

This realme comprehends certaine particular kingdomes, that is to say, that of Siam, first called Chaumua, then that of Muantay (in which is the towne of Odie) and those of Brame, Caiprimo, Chaneram, Camboye, and Campae; and moreover Iangome, Cuctay, and Lancaam, which three realmes are inhabited by the Layes. The chief townes of all this realme are Siam, Odie, Cambaye, Campae, Sincapure, Malaca and Quedoe.

* * * * * *

The towne of Sincapure lies in the remotest Southerne part of this countrie upon a cape, which some take for the great Promontorie whereas Ptolemee sets the towne of Zabe: but Magni thinkes it is rather Ptolemees Palure, from whence they go that will pass by sea into Chryse or Japon. As for the towne of Malaca, I have described it in the discourse of the king of Spaine—Quedoe is a famous towne by reason of the pepper that grows in that territorie.

THE THEATRE of the Empire of
Great Britain..............and
a prospect of the most famous

Parts of the World..............
By John Speed.

Printed for Thomas Basset at the
George in Fleet Street, and Richard
Chiswell at the Rose and Crown in
St. Paul's Churchyard, MDCLXXVI.

p. 52.

India extra Gangem contains several Territories which are either large kingdoms of themselves or are divided into divers lesser kingdoms: the first are six, namely 1. Brama or Barma, 2. Couchinchina, 3. Camboia, 4. Jangoma, 5. Siam, 6. Pegu, 5. Siam, a peninsula, the same which of olde was termed Aurea Chersonesus, or the Golden Chersonese; and supposed by some to be Solomon's land of Ophir; as the other tract of this part of India was called the Silver Region. This Peninsula contains within it the Kingdom of Malaca, Patane, Jor, Muantay, and Siam peculiarly so called. Malaca, denominated from its emporium, or city of greatest trade, belongs to the Portugueses who have also Sincapura and Pulo Zambilan. Patane, or as some say, Pathane, to distinguish it from that Patane already mentioned, (*i.e.* Patanau and Patane in Indostan), taking name also from its greatest city; where, by the Queen's leave (for it hath of late been governed by Queens) the English and Hollanders save their several factories.

* * * * *

Quedoe, a towne of great trade for pepper, of which the best sort is there to be had. Lugor, near the Isthumus of the Chersonnese. Calantan, peculiar to a petty kingdom subordinate to the Crown of Siam.

Morden's History of the Present State of all Nations.

BY MR. SALMON.

London MDCCXLIV.

The Present State of Siam, p. 64.

The town of Malacca which gives name to the Peninsula was taken from the Portuguese by the Dutch, October, 1640. When it was in possession of the Crown of Portugal it was a place of great trade, and frequented more than any other town in India, except Goa, here being the rendezvous of their shipping from China, Japan, the Spice Islands, etc.

They built the castle and fortified the town with a wall, and it had five parochial Churches, a College of Jesuits, and was a Bishop's see, but the Dutch have let all the Churches run to ruin, except one; and the trade is removed to Batavia: it is now only inhabited by two or three hundred families of Dutch, Moors, Portuguese and Chinese, with some Malays who live in the suburbs, and has a garrison of two or three hundred soldiers. This place is naturally very strong, and by its situation commands the Streights of Malacca: The Dutch, who are masters of it, overawe all the little princes on those Coasts, and compel them to deal with them on their own terms; they look upon themselves to be lords of that part of the world, and almost exclude all other Europeans from any share of the trade.

15. Sincapura is situate in the first degree of North latitude, and gives its name to the Eastern part of the Streights of Malacca.

16. Johr which lies to the Eastward of Sincapora in about one degree 30 m. This town, and the province it gives its name to, have thrown off their allegianne to the King of Siam; but the Dutch are in a position to give laws to them when they please, and it is only because they do not think it worth their while that they have not a garrison there.

P. 71. The principal trade of the English in this country is driven at the port of Malacca, in the possession of the Dutch: hither the English send two or three country ships yearly from the Coast of Coromandel and the Bay of Bengal, with Callicoes, slight silks, opium, etc., and make profitable returns in canes, rattans, benjamin, long pepper, sugar, sugarcandy, sapan wood, and sometimes gold may be had at a reasonable rate; but this is a trade prohibited by the Dutch, and carried on by connivance of the Governor, council and fiscal.

* * * * *

Mr. Lockyer has given us the following account of their weights and prices goods bore there in the year 1704.

The weights, he says, are 16 mace to 1 buncal of 1 ounce 9 pennyweight 12 grains Troy; 100 catty are a pecul of 137½ lbs., is 5½ lbs. larger than the common China pecul; and 3 pecul are a bahar.

(Selections) *Price Current July 1704.*

	Rixdoll.	Sk.
Aquila wood per pecul	50 to 150	00
Canes per mille.	60	00
Copper per pecul	24	00
Gold Acheen per buncal	24	00
Gold China ditto. 93½ touch	24	06
Opium per chest	312	00
Quicksilver	80	00
Rattans per 100 bundles 14 foot long	16	00
Sugar per pecul	03	00
Tyn per behar	40	00

To this account of the trade of Malacca I shall subjoin a farther description of the place and inhabitants, extracted chiefly from Mr. Dampier and Mr. Lockyer, who were both upon the place.

The town of Malacca stands on a low level ground, close to the sea-side: on the East side of the town there is a river, which at spring-tide will admit of small vessels, and on the East side of the river stands a strong fort, between which and the town there is communication by a drawbridge: this fort is built at the foot of a little steep hill, and is of semicircular form, like the adjacent hill: the walls are founded on rock, very thick, and carried up to a considerable height; and the lower part of them is washed by the sea at every tide: on the other side of the hill, there is a large moat cut from the sea to the abovesaid river, which makes it an island; and that part next the land is stocked with great trees: on the hill stands one little Church which serves the Dutch inhabitants; and it is to be presumed, the Portuguese, who are pretty numerous, may have a chapel in the town; but travellers do not mention any temple for the rest of the inhabitants.

In the town are between two and three hundred families of Dutch, Portuguese, Chinese, and Moors, and two or three great Armenian merchants. The Chinese have the best shops; the houses are generally built with stone and the streets are wide and strait but not paved: The native Malayans who inhabit the suburbs, live in poor mean cottages, and are kept in great subjection by their haughty Dutch masters: but it is observed, they still retain a desperate sullenness in their looks: and the Malayans of the neighbouring provinces have frequently revenged themselves on the Dutch for the tyranny and oppression exercised on them and that restraint the Hollanders put upon their trade all along the Malayan Coast by their guardships, insomuch that it is very difficult for their people to trade with any but the Dutch.

The town of Malacca is healthful, considering the climate, and is neither subject to the hot winds of the Coast of Coromandel, or those chilling ones in Sumatra. It is not a place of any great trade at this day; but as the Dutch are masters of the Streights of Sunda to the South of Sumatra, and this town gives them the command of the Streights which bear the name of Malacca to the North, while they are in possession of this place they have in a manner the trade of China and Japon in their hands, and can exclude any other nation from it they happen to be at war with. Indeed ships may pass the Streights of Malacca without coming within reach of the guns from their fort; but then they have guardships ready to intercept their enemies; and they continually make the Portuguese pay toll for every ship that passes by at this day, as the Portuguese formerly served them. And it is observed, this town is naturally so strong, that the Dutch could never have taken it, if the Portuguese had not been frightened out of it.

Collier's Dictionary.

SECOND EDITION 1688.

MALACCA. A town of Asia, in the Peninsula of the Indus on the other side of the Ganges, called formerly the Golden Chersonnese. It has the kingdom of Siam to the North and is everywhere else surrounded with the ocean. Heylin says it is 270 English miles in length, of a disproportionable breadth, extream hot, and, though neither populous nor fruitful, yet very rich by its commerce with all nations. In 1500 the King of Siam, from whom Malacca revolted, endeavoured to reduce it with 200 ships, 3000 men, and 400 elephants, but in vain. The Aire of it is unwhilesome, but the conveniency of the Harbour, and the great trade makes it famous, not only in the Indies but even in Europe.

The country and town of Malacca belonged to the king of Ihor. The duke of Albuquerque conquered it for the Portuguese, who built a fort there and made it an episcopal see; but the Hollanders took it after 6 months seige in 1640. The town of Malacca is situate upon the Streights which separate the firm land from the Isle Sumatra. It rains twice or thrice a week here, all the year over, except in the months of January, February, and March. The air is very good and agrees very well with strangers, though the Portuguese published the contrary, to hinder other nations from settling there.

Mandesto, Olearius, Linchot'ns voyage to the Indies. Maginen. Geogr.

MALAISES. A people in the kingdom of Malacca, in the Peninsula of Indus, beyond the Gulf of Bengala. A great number have settled themselves in the kingdom of Siam. They are Mahometans; but there is some difference between their religion and that of the Turks and Persians. They are good soldiers and great robbers.

Siam is commonly divided into eleven provinces, which formerly had each of them the name of kingdom, viz. Siam, Martavan, Siara, Tanasserim, Keda, Pera, Ihor, Juncalaon, Paarn, Patana and Ligor; some of them still retain the name of principalities, but they who possess them pay tribute to the King of Siam whose subjects they are. There are also other countries which have the name of kingdoms and are tributary to the King of Siam, as the kingdom of Camboja, Gehor, Patane, Queda, Singgora, etc., the most part of which do every year present a nosegay of golden flowers as a tribute.

Ihor. A citie and kingdom of the Indies, within the peninsula on the other side the Ganges. It is situated on the most Southerly part of the Indies, near Malacca, which King Ihor often attacked. The city which gives its name to the kingdom is built upon piles, near unto a river which runs unto the sea near the promontory of Syncapura. There is a good Port; and the greater part of the city is named Batusaber, and the least Cotasalran.

Patana. A country unto Malacca, in the Peninsula of Indus, beyond the Gulf of Bengala, tributary to the king of Siam. The town Patana stands upon the seashore. The king and palace and that part of it where the Grandees of the Court live is fortified with pallisadoes. The air is very good, though they have a great deal of heat there. Their summer begins in February and lasts until the end of October; and during the months of November, December and January it rains continually with the wind at North East. They have one sort of fruit or other every month and their hens lays eggs twice a day: great plenty of cattle and fowl, and a vast number of tigers, elephants, and monkeys in the woods. The inhabitants are of the Mahometan religion and are stately and conceited in their gate, but their conversation is civil enough. The Chinese and Siamese who have settled here are very intelligent and understand sea affairs but the Malaccese apply themselves only to Husbandry and fishing.

Salmon's Geographical Grammar 11th edition 1769.

The Malayan Pater-noster. Bappa kita, jang adda disurga namma mou jadi bersakti; radjat-mu mendarangkan hatimu menjadi de bumi seperte de surga; roti kita derri sa-hari-hari membrikan kita sa-hari inila; makka berampunlah pada-kita doosa kita, seperti kita berampunkan siapa bersala kapada kita; d'jang-an hentar kita kapada tjobahan, tetap di-lepasken kita dari jang d'jakat; karna mu pun'jh radjat, daan kawassakan, daan herbassaran sompey kakakal. **Amen.**

Perak the Arrow-Chosen.

By R. O. Winstedt.

In *J. R. A. S., S. B.* 1, p. 85, Sir William Maxwell translates an extract from the *Marong Mahawangsa* or "Kedah Annals," of which the original may be read on p. 62 of *Journal* 72 (1916). It relates a Kedah claim that Raja Marong Mahapodisat founded Perak, selecting the site of its capital by loosing a silver (*perak*) arrow called Indra Sakti and building a town on the island where it fell. As related in my "History of Kedah," the only island in Perak known to have borne that name was named and settled by Sultan Iskandar who ascended the Perak throne in 1765 A.D. (Vide *Misa Mĕlayu,* published in the "Malay Literature Series," Singapore 1919). But admitting the absurdity of the legend, whence did a Malay chronicler get the non-Malayan idea of choosing a site by loosing an arrow. a weapon seldom or never employed by people of his race, into trackless forests?

In 2 Kings, chapter 13, verses 14-17 there is the story of how Elisha bade Joash the king of Israel shoot an arrow eastward out of the window, "the arrow of the lord's deliverance from Syria." The shooting of an arrow to determine a site was practised by the Persians in Sassanian times. The Haji-abad inscription (Martin Haug's "Introductory Essay on the Pahlavi Language" prefixed to Dastur Hoshangji Jamaspji Asa's "Old Pahlavi—Pazand Glossary," Bombay and London 1870) gives one instance. Again Tabari the famous Persian historian (b. A.D. 839-d. A.D. 923) tells us that when the Persian general Wahriz, the conqueror and governor of Yemen, felt his death approaching, he called for his bow and arrows, bade his retainers raise him up and shot an arrow into the air, commanding those who stood by to mark where it fell and to build a mausoleum for his body there. (Nöldeke's "Geschichte der Perser und Araber zur Zeit der Sasaniden," Leyden, 1879, pp. 263-264). This story is also related by the Arabian historian Dinawari (ed. Guirgass 1888, p. 66). The practice continued into Muhammadan times and was used by the Arabs as well as the Persians as is shown by a passage in al-Baladhuri's *Kitabu futuhi'l-buldan* (ed. de Goeje, p. 276.)

Evidently in this Kedah legend we meet another instance of Malay indebtedness to Persian models, such as is seen in the introduction to the *Sĕjarah Mĕlayu* (Wilkinson's "Malay Literature" I, p. 18) and in the introduction of the same type to the "Kedah Annals."

The Boria.

BY A. W. HAMILTON.

Penang is the home of the *Boria* and this annual feast of fun is looked forward to by old and young Malays and Chinese alike with the greatest excitement and curiosity.

The name *Boria* is applied to the performances of a troupe of strolling minstrels who appear during the first ten days of the Muharram and at no other time of the year. Each troupe consists of twenty to forty youths, usually friends or inhabitants of the same locality, who band together for the purpose of enjoyment and emulation with the prospect of earning enough money for a bean feast on the completion of their labours. Being as penurious as the majority of their fellow countrymen they have first to find a manager who will finance the whole concern and reimburse himself with interest from the profits.

This matter being arranged, a *tukang karang* or composer and leading tenor is chosen and it devolves on him to determine the key-tune or chorus of the troupe and the words to be sung to it, which should contain allusion to the locality from which the troupe spring and if possible a reference to what they represented last year. It is necessary next to divide the party into the two divisions of musicians and players, the latter being subdivided into star-turns and chorus.

Having decided what the troupe is going to represent such as a band of European or Arab soldiery or a group of Chinese or Javanese or any other class of people, the manager proceeds to purchase outfits suitable for the part and hires or borrows the musical instruments.

The band usually consists of half a dozen instruments varying in nature with the representation, and it approximates both in tune and structure to the national instruments of the country represented. A cavalcade of Bedouins would give prominence to the *maruas* and a group of Indians to the *dol* whilst Chinese or Europeans would be incomplete without the addition of cymbals (*che*^{n} *che*^{n} and a drum (*tambor*) respectively.

The one essential instrument is the violin as it is the accompaniment to the recitation of the *tukang karang* or composer.

The two or three star turns are now arranged with regard to the capabilities of the actors to mimic the dancing of the nationality represented, or some trait in their character or well known feature of their daily life. The field is wide and full advantage is taken of it to portray chetties and sensen, blustering officers and coy dancing girls, together with a host of other well known characters.

Jour. Straits Branch R. A. Soc., No. 82, 1920.

It only remains to marshal the chorus of twenty or so under a leader and to supply them with walking sticks, staves or wooden guns as occasion demands and a large flag or insignia to be carried at their head.

The preliminaries complete, undress rehearsals take place nightly for an hour or two in some secluded spot, and last for a week, the performers being regaled with light refreshments at the manager's expense.

All being ready, on or about the 5th of Muharram the troupe will set forth in full war paint soon after dark in search of any householder willing to receive (*sambut*) and reward them. There is no difficulty attached to this search. It is customary for any well-to-do Malays or Chinese and even for clubs, who wish to see the performances, to light up their compounds, clear an arena and sit down with their guests invited and uninvited to await the coming of the *Boria.*

The troupe is not long in making its appearance, its advent heralded by the blowing of a horn or similar instrument. The whole band defiles into the arena, to the accompaniment of music and shouting combined with the waving of sticks, and takes up its position facing the principal guests, the chorus forming a background and the band to one side.

The *tukang karang* or composer dressed in resplendent uniform comes to the fore and sings the chorus of his troupe, so that all may know what they are and which district they hail from. This is followed by the whole troupe singing the same refrain in chorus to the loudest music of the band and accompanied by a rhythmic swaying of bodies and brandishing of sticks. The composer then proceeds to sing several verses each punctuated by the chorus of the troupe as before. The quality of these verses depends on the ability of the composer and varies from the set and stilted phraseology of welcome and thanks to the donor of the entertainment, to complimentary and jocose remarks about the various notabilities present, made in the hope of extracting a small present in return. Occasionally the composer dispenses with this procedure and recites a mirthful tale of the arrest of a nyonyah's gambling party or the story of a cock-fight or of some notorious local event of the past year. Whatever the narration, as soon as it is finished the musicians strike up another tune and the star performers go through their turn of dances or acts acrobatic or otherwise.

The performance having lasted about half an hour and other troupes being impatient to enter, the close of the piece is announced in a short verse or two of farewell and the troupe marches out to find fresh fields to conquer.

So the evening wears on with troupe after troupe until the early hours warn both performers and onlookers that it is time they seek rest. These nightly revels continue until the evening of the 10th of Muharram when they are continued all night until the following morning. Then the jaded troupe wends its way to some previously selected pleasure ground near a stream where after a short *mandi-mandi* or cleansing they devote themselves to the enjoyment of a well-spread table often with a *ronggeng* in accompaniment, until they disperse homewards soon after noon tired but supremely happy. This feast and in fact all the refreshments supplied during the performances as well as the incidental expenses of riksha fares, etc. are supplied by the manager who also presents each member of the troupe with the customary 25 cents when dispersing homewards after each night's performance; in addition to this, the *tukang karang,* the star turns and the band are paid a definite salary of two or three dollars a night, apart from any present that they may receive from the audience.

The financial aspect from the manager's point of view is often none too bright, the only assets being the takings from each house of from $5 to $10 or say $80 for an evening, and at the outside $400 for the season. Against this are to be set the cost of outfit $100, fares and salaries $150, expenses in connection with the feast $100 or a final profit of $50.

In Penang the Borias are often a day late in their reckoning of the Muhammadan month so that their *mandi-mandi* falls on the 11th and not on the 10th of Muharram, which is the real Ashura or Tenth *i.e.* the date of the death of Hussain at Kerbela.

In Singapore and Malacca Boria performances in imitation of those in Penang are held during the month of Saafar from the 20th onwards so as to terminate on Mandi Saafar with the usual bathe and feast, but though popular at one time, only one Boria troupe exists now in Singapore as against forty to fifty in Penang.

Once upon a time the advent of the Boria season was rather dreaded by the more peaceful Muhammadans in Penang on account of the frequent collisions which took place between the two factions of the red and white flags, the followers of two noted Sayids of Acheen Street and Jelutong respectively, who had formed secret societies in imitation of and in conjunction with the Chinese. But of recent years this unruly element has died and only an echo remains in an occasional piece of red or white cloth tied to a stick or some challenging allusion in the chorus of one of the troupes concerned.

It would be a thousand pities if the Borias were ever allowed to die out if only for the sake of the opportunity they offer to budding composers, to say nothing of the fun provided free for masses whose lives are dull enough God wot.

The following is a typical chorus intimating that the troupe come from Hutton Lane (*Jalan Hatin*) towards Kedah Road (*Kampong Mĕlaka*) and that they are playing the story of Laila Majnun this year in place of Panji Sumerang which was last year's performance.

1. Laila Majnun orang yang muda,
Bĕrsama adzab bĕrsama sangsara,
Panji Sumerang ubah chĕrita,
Di-Jalan Hatin Kampong Mĕlaka.

2. A free translation of the next chorus would run

Arabs we from the stock of Morocco
Startled from dreams in the depth of a grotto
Hearing the foe's within the gate
At Jalan Baharu we await.

Kita Arab bangsa Maghrabi
Di-dalam goa tĕrkĕjut mimpi
Dĕngar musoh di-dalam nĕgĕri
Jalan Baharu sĕdia mĕnanti.

The remaining choruses are taken at random from last year's Borias and the name of the district from which the troupe come is given at the head in both English and Malay.

3. *Kĕlawai Road (Mukim Kĕlawai).*

Badwi tua di-kaki bukit
Kĕluar mĕnjaga mashrik ka-maghrib
Badwi Arfah ampunya murid
Mukim Kĕlawai sĕdia tauhid.

4. *Tanjong Tokong village.*

Kita ashkar di-tanah Janggi,
Kĕrja mĕnanam gandom barley
Masok bĕrniaga di-tanah Jawi,
Tanjong Tokong sĕdia mĕnanti.

5. *Bagan Jĕrmal Road (Mukim Bagan).*

Kita dewa orang kĕyangan
Turun ka-dunia jadi pĕrmainan
Tidak tiru sĕndiri karangan
Mukim Bagan tĕmpat kĕdiaman.

6. *Tanjong Tokong village.*

Kita Arab bukit Tur Sina
Kĕluar mĕmbantu sa-alam dunia
Gĕrak gĕmpa bunyi bahana
Di-Tanjong Tokong sĕtia nama.

7. *Tanjong Bunga (Bagan Tanjong Bunga).*

Habshi Afrika orang ulu,
Kĕrja mĕnchari arang batu;
Sa-rata tĕmpat tiada tĕntu
Bagan Tanjong Bunga mĕnjadi satu.

8. *Kĕlawai Road* (*Mukim Kĕlawai*).
Mĕlayu Janggi Mĕlayu Sala,
Kĕrja mĕnangkap ikan haruan di-paya;
Sa-tahun sa-kali Mĕlayu mĕnimba
Mukim Kĕlawai aman sĕdia.

9. *Kĕdah Road* (*Kampong Mĕlaka*) *and Burmah Road* (*Tarek Ayer*).
Kami Sehir orang yang muda,
Anak murid mahiran tua;
Pulau Pinang datang mĕngĕmbara,
Di-Tarek Ayer Kampong Mĕlaka.

10. *Kampong Dĕli and the bridge at the junction of Pinang and Burmah Roads* (*Titi Papan*).
Mĕrgi muda baharu mĕnjadi,
Mĕrgi tua bĕrgĕlar ganti;
Tidak tiru reka sĕndiri
Titi Papan Kampong Dĕli.

11. *Kimberley Street* (*Padang Garam*).
Askar Yunan Kuantong sama,
Sudah 'resign' daripada China;
Kĕluar mĕnchari som, komkoma,
Anak padang sĕlamat sĕmpurna.

12. *Kampong Java.*
Askar Takrubi kaum bebas,
Padang pĕprangan baharu tĕrlĕpas;
Mĕnangkap nĕgĕri tĕrlalu pantas,
Di-kampong Jawa aturan jĕlas.

13. *Yahudi Road* (*Lorong Yahudi*).
Badwi Makhdum kaum gila,
Ibarat kami burong gĕroda;
Mĕndapat hukum daripada raja,
Di-lorong Yahudi ada sĕdia.

14. *Abu Siti Lane* (*Lorong Pusi*) *off Burmah Road* (*Tarek Ayer*).
Kita Ambun Jawa Sĕnasi,
Kĕluar mĕniaga sa-rata nĕgĕri;
Nyai Dasimah punya ganti,
Di-Tarek Ayer, Lorong Pusi.

15. *Dato' Kĕramat Road beside the jail* (*Kĕbun Nyior*).
Mĕlayu pĕnyamun tanah Inggĕlis,
Pantalon hitam, baju puteh;
Sa-barang kĕrja Mĕlayu buleh,
Di-kĕbun Nyior Sĕri Majlis.

16. *Dato' Kĕramat.*

Askar Kurdi tĕrkĕjut bangkit,
Mĕndapat sĕru kita tĕrbit
Jikalau sarok, kita ta'tabek,
Dato' Kramat mĕnchari sabit.

17. *Mc Alister Road (Jalan Baharu).*

Troop Albania jajahan Itali,
Ibarat rimau mati bĕrdiri;
Alatan dunia ta'ambil pĕduli,
Jalan Baharu sĕdia mĕnanti.

18. *Halfway Road (Lorong Sa-kĕrat).*

Radin mĕntĕri putĕra Kuripan,
Jatoh ashek ka-Ken Tabohan
Wira Undani jadi harapan
Lorong sa-kĕrat punya aturan.

⁂

The Date of the Hikayat Inderaputera.

By R. O. Winstedt.

Many MSS. of this romance exist. References and descriptions will be found in van der Tuuk's catalogue of Malay MSS. belonging to the Royal Asiatic Society ("Essays relating to Indo-China," vol. II, p. 10); in Juynboll's catalogue of the Leiden MSS. (p. 121); in van Ronkel's catalogue of the Batavian MSS. (p. 97) and in Snouck Hurgronje's "The Achehnese," vol. II, p. 148. There are also MSS. of it at Brussels and the Hague. The late Mr. D. F. A Hervey owned a copy (300 pp., dated 1307 Malacca). An edition has been lithographed in Singapore (A.H. 1321); the text of which judged beside the selections given by van der Tuuk and Juynboll is corrupt. A poem, the *Shair Indrapura,* founded on the prose work has been printed in Singapore.

Many quotations from the romance are given in Werndly's "Maleische Spraakkunst" (1736), and the book is mentioned by Valentijn (ed. 1726), III, p. 26. Nowhere have I found any reference which puts back the date of its composition earlier than 1726 A.D.

There is a well-known religious work the *Sirat ul-mustakim* composed by Shaikh Nuru'd-din the author of the *Bustanu's-salatin* in A.H. 1044 (1634 A.D.)—Juynboll's "Catalogus," p. 257 wrongly gives the equivalent of the Muhammadan date as 1628 A.D. Of this work there are several MSS. at Leiden and Batavia; one edition lithographed in Singapore in 1330 A.H. (giving the date of the original composition 1044 A.H. on the cover); one printed in Masir (Egypt) in the margin of the *Sabil al-muhtadin,* which is founded on the *Sirat ul-mustakim.* Now on p. 32 of the lithographed edition and on p. 39 of the printed marginal edition occurs the sentence: *tiada harus bĕrsuchi dĕngan suatu bĕnda yang di-hormati pada shara' sapĕrti tulang dan kulit yang bĕlum di-samak atau barang sa-bagai-nya, tetapi harus istinja' dĕngan kitab Taurat dan Injil yang sudah bĕrubah dari-pada asal-nya dan dĕmikian-lah harus istinja' dĕngan kitab yang tiada bĕrguna pada shara' sapĕrti Hikayat Sĕri Rama dan Indraputĕra, dan barang sa-bagai-nya, jika tiada di-dalam-nya nama Allah.*

Professor Dr. Ph. van Ronkel has been good enough to examine the two Leiden MSS. and informs me that the passage occurs in both of them. He agrees with me that the passage may be accepted as occurring in Shaikh Nuru'd-din's original work, so that clearly the reference proves the *Hikayat Indĕraputĕra* to be old enough to have been quoted as a profane classic in 1634. That the Malay *Hikayat Sĕri Rama* (derived from a Tamil version) goes back to that period we know, because Archbishop Laud had acquired the Bodleian copy in 1633. Perhaps the fact that of the *Hikayat Indĕraputĕra* there are Bugis Macassar and Achehnese redactions is contributory evidence of its age.

In the Singapore edition and in some of the MSS. of the *Hikayat* there are a large number of *pantun.*

It is to be hoped that from the many MSS. a critical and scholarly edition of this romance may some day be prepared. Meanwhile it would help towards that end if the "Commissie voor de Volkslectuur" of Netherlands India were to print in its excellent series a text or texts from the two MSS. in Batavia.

⁂

Hikayat Jaya Langkara.

By R. O. Winstedt.

This romance is included by Werndly in the list of Malay books known to him in 1736 the date of the publication of his "Maleische Spraakkunst." No MSS. of it exist in London, Leiden, Brussels or the Hague: I cannot say if copies are to be found at Paris or Berlin. One MS. was presented by Mr. R. J. Wilkinson to the Cambridge University Library. G. K. Niemann read a borrowed MS. of 97 pp., written in 1847 and containing some Javanese words like *ingsun, kĕlir, gringsing wayang* which do not occur in the MS. I shall describe (*Bij. T. L. en Vk. No. 4, deel 3,* 1879). There is a fragment of it in the Library of the "Bataviaasch Genootschap," Bat. Gen. 53, summarized in van Ronkel's "Catalogue," p. 162. Among the Hervey MSS. is a *Hikayat Makdam Makdum* which may be a version of it. In Raffles' Library Singapore there is a MS. of it (Logan Library No. 302) copied on the 15th of Rabi u'l-awal A.H. 1279 (A.D. 1863) and formerly the property of one Muhaidin of Kampong Mĕlaka. A gloss on page 43 mentions the name of one Jaafar of Kampong Pĕnyĕngat, Riau. Another gloss on the cover mentions the name of a Muhammad Idris of Kampong Rochoh. The size of the pages is 8½ + 6½ inches and the number of pages 102. At page 28 there is a lacuna and a space of 1¾ pages left empty. There are several corrupt sentences and a few doubtful words: *umu* is found for *ungu.*

There is a Macassar version of the Malay romance from which an extract is given in Matthes' "Makassaarsche Chrestomathie." The Malay romance differs entirely from the Javanese *Jaya Langkara* described by Cohen Stuart (*Bij. T. L. en Vk. Dl. I bl. 44, and II bl. 150*).

Below I give a summary of the contents of the Singapore MS. As van Ronkel has pointed out ("Le Roman de la Rose dans la litterature malaise," *Tijd. v. Ind., T. L. en Vk., deel LIV, afd. 5 and 6*) the quest for a flower or some other rare object to be used as medicine is common in Malay romances. It is a motive borrowed from Indian folk-lore (Parker's "Village Folk-Tales of Ceylon," vol II, p. 329). Possibly the Malay love-charm made of the petals of the *chĕnduai,* a flower to be found rarely in the mountains, is associated with this motive in romantic literature. In the *Ht. Raja Kĕrang* (van Ronkel's Catalogue of the Batavian MSS. p. 180) the quest is for a manggo which brings offspring to a childless prince; in the *Ht. Langlang Buana* for jasmine which gives the prince a son; in the *Ht. Pĕkar Madi* (*ib.* pp. 167-171) for a fish whereof a sick prince had dreamed; in the *Ht. Laksana* (*ib.*

p. 190-2) and in the *Ht. Indra Kĕyangan* ("Essays on Indo-China," 2nd ser., vol. II, p. 36) for a musical instrument; in the folk-tale *Raja Budiman* (*R. A. S., S. B.*) for a bird, a remedy for sickness: in the *Ht. Indra Bangsawan* there are two quests one for a bamboo musical instrument the subject of the king's dream and one for the tigress' milk the only salve for a princess's eye (*cf.* Snouck Hurgronje's "The Achehnese" vol. II, pp. 145-147 and pp. 143-5 and Parker op. cit., pp. 357-9). The *Ht. Indra Bangsawan* resembles closely in plot the *Ht. Gul Bakawali,* a modern Malay translation from the Hindustani of Nipal Chand. But the *Gul Bakawali* includes episodes which make it nearly identical so far as the broad plot goes with the *Ht. Jaya Langkara.* In both we have the son whose birth will bring his father disaster; the favouring of that son by supernatural powers; the wicked brothers who fall into duress; the quest for a magic flower.

The episode of the astrologer prophesying fortune for Jaya Langkara and the wicked half-brothers reporting that the astrologer has prophesied disaster from him for his father's kingdom is parallelled in the stories of the lying astrologers in the folk-tale *Raja Budiman* and in the folk-tale *Raja Donan* (*J. R. A. S., S. B.*) The prediction that, if a father sees his son, disaster will follow is common in Indian folk-tales (*e.g.* Steel and Temple's "Wide-Awake Stories," p. 250): a kindred superstition underlies the Malay rule that after installation a Raja Muda (or Crown Prince) must cross a river and not for seven days meet the ruler who has installed him.

The *Ht. Raja Ta'bir* (van Ronkel's "Catalogus" pp. 161-2) is merely a variant version of the *Ht. Jaya Langkara* with an added episode. In it the hero Panji Mas Merang is the son of Raja Ta'bir Mukif of Hamasfati and princess Suganda Iram. His half-brothers, the sons of Suganda Bayang-Bayang of Chuchali, are named Jongkar and Jongkir. A seer Indra Wamaki takes the place of the *kadzi* astrologer. The flower grows on Mt. Undara. The prince of Madain falls sick and the name of his daughter who dreams of the flower in the possession of the princess and the two half-brothers is Firi Manggĕri. She and Jongkar and Jangkir are imprisoned in Tumanggaturi.

In the Batavian fragment of our romance the father of Jaya Langkara is جين سمقت and his wives Sukanda Chahaya بيرمر and Sukanda Chahaya Belambing whose sons are Mukdim and Makdum. The name of the princess is Ratna Kasihan as in Niemann's MS.

The following is a summary of the Singapore MS.:—Saifu'l-Muluk, king of 'Ajam Saukat (سوقه or سقة or شقدت) married princess Sukanda Rum and got no child; married Sukanda Bayang-

Bayang and got two sons Makdam (مقدم) and Makdim (مقديم). Allah grants Sukanda Rum's prayer for a son and she bears Jaya Langkara, with radiance as of a lamp about his head, (cf. *Katha Sarit Sagara, Towney,* vol. II, p. 133 and 145, *Cinq Cents Contes et Apologues,* Chavannes, vol. I, p. 301, II, p. 17, III, p. 172) and the harvest prospered on account of his birth. Astrologers prophesy luck for the young prince. Then the king sends Makdam and Makdim to consult a *kadzi* and they bring back a lying report that the *kadzi* prophesies disaster will come from their half-brothers.

Jaya Langkara and his mother are driven into the wilds, and live with wild beasts in a cave. Jaya Langkara strikes his hand on a rock and his finger gives forth water:—an incident common in Indian folk-lore (*Maha Bharata,* Drona Parva LXII, where Indra so feeds Prince Mandhatri; Chavannes' *op. cit.,* vol. III, p. 216; Parker *op. cit.,* vol. II, p. 365.)

His royal father falls sick and astrologers say that the only remedy is a flower (*kĕmbang kumkuma puteh*) which grows on a mountain in Egypt (*Masir*)!

Now the king of Madinah falls sick. His daughter Ratna Kasina dreams that only that same flower can cure him. She goes in search of it and on the way passes Jaya Langkara. Then Makdam and Makdim come. All three go on the quest, and come to the haunt of a dragon, Naga Guna, where Ratna Kasina has already somehow arrived:—*dahi-nya bagai bintang timor, hidong-nya bagai mĕlor jantan, pipi-nya sapĕrti pauh di-layang, tĕlinga-nya sapĕrti tĕlepok laboh, rambut-nya sapĕrti mayang mĕngurai, kĕning sapĕrti taji di-bĕntok dan gigi-nya sapĕrti saga mĕrĕkah, dagu-nya sapĕrti tĕlor burong, pinggang-nya sapĕrti pinggang-nya kĕrĕngga, kaki-nya sapĕrti kaldai dan tumit-nya sapĕrti pauh di-larek, lĕngan-nya buntaran, dan bĕtis-nya bagai bunting padi*:—the stock Persian similes for female beauty. (Winstedt and Blagden's "Malay Reader," p. 193.) The dragon sends a black and a white cat to guard her.

The dragon lifts them all on his head to the crest of the mountain in Egypt. The dragon sleeps till the incoming tide shall bring the magic flower to this hill which is the navel of the seas. Impatient at this prolonged sleep (40 days) they get Ratna Kasina to pluck the flower which roots itself in her hand. Makdam and Makdim fail to take it from her hand. When Jaya Langkara succeeds in getting a leaf of the flower they push him, the leaf in his hand, into the sea:—pushing a person off a cliff is a common episode in Indian folk-tales (*The Jataka,* No. 193, vol. II, p. 82, and No. 419, vol. III, p. 261; Chavannes *op. cit.,* vol. I, p. 50 and 112; Parker *op. cit.,* vol. III, p. 370.) The dragon waking sends two cats to trace his whereabouts.

Now Ratna Gĕmala, daughter of the king of Egypt, dreamt of this same magic flower which turned seven colours at once, and swore she would not eat or sleep till she got it.

Ratna Dewi, daughter of the king of Franks (*Fĕringgi*), also dreams of the magic blossom. Her father sends Bangbang Sĕnama, (بڠبڠ سنام), Langlang Laut and Langlang Samudra (a name occuring also in *Ht. Indra Jaya*), his three viziers, on the quest. Langlang Laut takes rich presents to deceive the king of Egypt, while Bangbang Sĕnama sets out for the mountain and meets Makdam and Makdim and princess Ratna Kasina. The wicked brothers had made overtures to the princess, who reproved them with a quotation from the *Hadith!* Bangbang Sĕnama captures the trio and imprisons the two brothers in the كديند.

The two cats hiding under the house of the *mangkubumi* of Egypt hear of Jaya Langkara's capture and report to Naga Guna. The cat put in his ear, the dragon swims into the sea and finds Jaya Langkara still supported by a petal of the magic flower: he is revived by licking the bezoar in the dragon's palate. They reach a reef (*ujong karang*)—Pulau Biram Dewa in Niemann's MS.—on the shore of the land of the Franks and Jaya Langkara fights an ascetic Perputeh Undang-Undang (ڤرڤوته اندڠ٢) and compels him to become a Muslim. With the help of genies he releases his half-brothers from prison. Ratna Kasina and Ratna Dewi come out and the former tells them he is Jaya Langkara. They feast, get intoxicated with wine and exchange verses. Makdam marries Ratna Dewi. Jaya Langkara gets the magic flower.

The *mangkubumi* comes from Egypt to get the flower. Jaya Langkara fights and worsts him, but hearing of Ratna Gĕmala's case goes to Egypt on Naga Guna's back and marries Makdim to Ratna Gemala. He tells how the magic flower has rooted in Ratna Kasina's hand. Then he and Ratna Kasina return to 'Ajam Saukat and the king's ill is cured.

Makdam and Makdim come to 'Ajam Saukat and resolve to kill Jaya Langkara, as each of them lusts after Ratna Kasina. Ratna Kasina flees to avoid them and comes to Jaya Langkara in the dragon's cave. The two half-brothers stop the entrance to the cave and think they have slain their rival. But the dragon releases him, and takes him and the princess to Madinah, where they are married and bathed on a *pancha-pĕrsada*. The dragon fetches every one including the astounded half-brothers to see the wedding. Jaya Langkara's mother weds the king of Madinah. Jaya Langkara is made king of Madinah.

Bustanu's-Salatin.

Its date and author

By R. O. Winstedt.

In his account of the Malay manuscripts belonging to the Royal Asiatic Society London, that great scholar van der Tuuk, following the interlinear Malay version instead of the Arabic in the manuscript before him, stated that the *Bustanu's-Salatin fi dzikr al-awwalin wa'l-akhirin,* "The Garden of Kings, showing forth the origin of all creation and the end thereof," was composed at Acheh by Shaikh Nuru'd-din ibn 'Ali ibn Hasanji ibn Muhammad ar-Raniri of Gujerat in 1040 A.H. (1630-1631 A.D.) by order of Sultan Iskandar Thani 'Ala'ud-din Mughayat Shah who reigned from 1636 till 1641 A.D.! This error was copied by most, if not all, scholars until Dr. Raden Husein Jayadiningrat wrote his critical study of the Sultanate of Acheh (*Bij. T. L. en Vk. van N. I., Kon. Inst. Deel LXV,* p. 136 foll., 1910.) By this Javanese scholar it was at last pointed out that the Arabic in the text records that Shaikh Nuru'd-din came to Acheh on Sunday the 6th of Muharram 1047 A.H. (May 31, 1637) and got instructions to compose this book from the Sultan on the 17th day of Shawwal in the same Muhammadan year (March 4, 1638). These dates I may add are given not only in the Arabic but also in the interlinear Malay text of Mr. R. J. Wilkinson's edition of two books of the *Bustanu's-Salatin* (Singapore, 2 vols., 1899-1900). Again in the margin of the *Taju'l-Mulk,* (printed at Mecca in 1311 A.H. and in Egypt,—editions on sale in Singapore) is published a treatise by Shaikh Nurud-din, called the *Bad' khalk as-samawat wa'l ardh* "The origin of the creation of heaven and earth," wherein in the Arabic of the preface it is stated that the author came first to Acheh on Sunday the 6th of Rajab 1047, but in the interlinear Malay translation of the Mecca edition Sunday the 6th of Muharram 1040 and in that of the Egyptian edition Sunday the 6th of Rajab 1040 is given as the date! That the treatise repeats the error of some of the MSS. of the *Bustan* is not surprising seeing that it is really the first book of the *Bustan* under another name. This fact, which unless I am mistaken has not hitherto been noted, would make the treatise useful for the preparation of a critical text of the *Bustan* (*cf.* for example Wilkinson's ed., p. 38, *Fasal pada mĕnyatakan kĕjadian shurga* and the Egyptian ed., p. 62.)

That the correct date for the arrival of Shaikh Nuru'd-din in Acheh was the 6th of Muharram 1047 A.H. is almost certain as our Javanese scholar finds only that date (May 31, 1637) of all the dates given fell on a Sunday. And the date when Shaikh Nuru'd-din began to write the *Bustanu's-Salatin* will be March

1638. At the same time, just as in the *Sějarah Mělayu,* there are interpolations, and, though at the beginning of Book II the author expresses the intention of writing of the kings of Acheh down to Sultan Iskandar Thani (1636-1641 A.D.), there has been added the history of Sultan Inayat Shah who reigned from 1678 to 1688 A.D.

Besides the *Bustanu's-Salatin,* Shaikh Nuru'd-din ibn 'Ali ibn Hasanji ibn Muhammad a'r-Raniri translated and wrote various other works: in 1044 A.H. the *Siratu'l-mustakim* (still reprinted and on sale in Singapore), in 1045 A.H. the *Kitab Hadith Nabi,* a Malay version of the Arabic درة القرأيد بشرح الققأيد, in the reign of Iskandar Thani the *Tabyan fi ma'rifat al-adiyan* and the *Asrar al-insan fi ma'rifat ar-roh wa'r-rahman,* in 1052 A.H. (1642 A.D.) the *Akhbaru'l-akhirat fi ahwali'l-kiamat* and the *Jawahir al-'ulum fi kashf al-ma'lum,* and in addition several works directed against the heretical pantheism of Shamsu'd-din of Pasai and Hamzah of Barus (*Vide* van der Tuuk, "Essays on Indo-China," Second Series, vol. II pp. 15-16, 49-50 and the "Catalogi" of Juynboll and van Ronkel.)

There has been some confusion (*vide* Snouck Hurgronje's "The Achehnese" Vol. II, p. 12) of our author, who often styles himself Shaikh Nuru'd-din Muhammad Jailani, with one Shaikh Muhammad Jailani ibn Hasan ibn Muhammad Hamid a'r-Raniri, who came first from Gujerat to Acheh as a teacher of logic, rhetoric and jurisprudence in the reign (1577-1586) of Sultan 'Ala'ud-din of Perak (or Mansur Shah, son of Sultan Ahmad of Perak), went to Mecca to study mysticism and returned to Acheh in 1588, Dr. Raden Husein Jayadiningrat combats their identity by several arguments. Our author in all his works describes himself as the son of 'Ali. In the *Bustanu's-Salatin* he actually mentions the time of the coming of his copatriot and describes him as the son of Hassan. Furthermore the dates of the two men differ by half a century. The Javanese scholar surmises that the earlier missionary was an older relative of the author of the *Bustan.*

⁂

MALAY MANUSCRIPTS.

in the libraries of London, Brussels and The Hague,

By R. O. Winstedt.

"Miscellaneous Papers relating to Indo-China," Second Series, Vol. II, pp. 1-56 contain a "Short account of the Malay Manuscripts belonging to the Royal Asiatic Society" by H. N. van der Tuuk. In the "Journal of the Royal Asiatic Society" 1899 Mr. C. O. Blagden printed a list of Malay MSS. subsequently bequeathed to that Society by Sir William Maxwell. We have Greentree and Nicholson's "Catalogue of the Malay MSS. in the Bodleian Library" (Oxford, 1910):—to which Library I have since presented a *MS.* of the *Ht. Shamshu'l-bahrain* and one of the *Ht. Raja Budak.* Dr. Ph. S. van Ronkel has given us in English an "Account of Six Malay Manuscripts of the Cambridge University Library." (*Bij. T. L. en Vk. N. I.* 6°, II, pp. 1-53). Appendix VII to Wilkinson's "Malay-English Dictionary" records a list of Malay MSS. presented by him to the same library. To complete these lists of Malay MSS. in English libraries, I translate below van der Tuuk's short account of Malay MSS. in the Library of the India Office and G. K. Niemann's paper on those in the British Museum. Fuller or up-to-date catologues of the Maxwell collection, the Wilkinson collection and of the collections in the Indian Office Library and in the British Museum are badly needed. In a later number I hope to catalogue the few Malay MSS. in Raffles Library, Singapore, to which I here give reference numbers.

Juynboll's "Catalogus van de Maleische en Sundaneesche Handschriften der Leidsche Universiteits-Bibliotheek" (Leiden 1899) and Professor van Ronkel's "Catalogus der Maleische Handschriften in het Museum van het Bataviaasch Genootschap van Kunsten en Wetenschappen" ('s Hage 1909)—these great works worthily carry on the tradition of van der Tuuk and should be in the hand of every serious student of Malay literature. To English students it is not so well known perhaps that Professor van Ronkel has also published catalogues of the Malay MSS. in the Bibliothèque Royale at Brussels and of those in the library of the Koninklijk Instituut. From these two last works I give a bare list of MSS.

There are other Malay MSS. in the Universiteits-bibliotheek of Amsterdam, in the possession of the Nederlandsch Bijbelgenootschap and in the Schömann collection at Berlin, which have not yet, so far as I know, been catalogued; and for those in the National Library at Paris we have at present only Professor Cabaton's "Catalogue sommaire des MSS. indiens, indochinois et malayo-polynesiens" (Paris 1912). The School of Oriental Studies, London, also possesses a few Malay MSS.

Van der Tuuk's words are worth repeating here:—"it is only by a careful comparison of many manuscripts that a text can be furnished which may be depended upon by persons desirous of obtaining an adequate idea of the grammatical structure of the Malay language, and reluctant to trust the assertions of those who pretend that Malay is devoid of grammar."

Kort Verslag van de Maleische Handschriften in het East-India House te Londen (*Tijdschrift voor Nederlandsch Indie*" 1849, *Eerste Deel,* bl. 385-400.) Under this title van der Tuuk gives a catalogue, not yet superseded, of the Malay MSS. now in the Library of the India Office, London. The following is a summary.

No. 50, small folio and No. 51, large quarto, *Hikayat Chekel Waneng Pati.* The readings differ little. No. 50 has a second part entitled *Klana Prabu Jaya.*

No. 66. *Hikayat mĕnchĕritĕrakan Raja Mĕlaka hĕndak mĕrajakan anakanda Raden Bahar di-Bukit Sa-Guntang.* From van Tuuk's description this evidently gives the last chapters of the *Hang Tuah*: it ends by telling how that hero is still king of the aborigines in Upper Perak.

No. 67, small 4to; *a.* of No. 96 and *a.* of No. 373. The *Ht. Pĕlandok Jĕnaka.* (Printed by H. C. Klinkert: vide Brandes' "Dwerghert Verhalen" *Tijd. In. T. L. en Vk. deel* XXXVII 1 e and 4 e afd.)

No. 68, small 4to; *a. Shaer orang bĕrbuat amal.* A religious poem written in Kedah.

- *b.* *Shaer Si-lĕmbari* (or *Sinyor Gilang* R. O. W.)
- *c.* *Shaer surat kirim ka-pada pĕrentah orang bĕrkaseh-kaseh* i.e. *Shaer Jauhar Chinta Bĕrahi* Leyden ("Essays on Indo-China," Ser. I vol. I p. 100) quoted verses from *c.* as coming from *b.*
- *d.* *Ht. Mi'raj Nabi Muhammad.* A very bad copy from the Javanese.

No. 69, small 4to; *Ht. Mesa Tandraman.* There were two divine brothers Sang Darmadewa and Dewa Kisna Indra. The younger went to the mountain Puspagiri as an ascetic: the elder Sang Darmadewa became king of Kuripan, and had four sons Singa Putra, Singa Marmaya, Singa Andaru and Singa Mandapa, also a daughter Chindra Dewi who remained a maid and lived an ascetic on the mountain Indra Chapa. The old king returned to heaven and his four sons ruled respectively over Kuripan, Daha, Gagalang and Wirabumi.

No. 87. *Ht. Pandawa Jaya.*

No. 89 and 90, fol. *Ht. Isma Yatim.* MSS. almost identical and agreeing in the episode of the singing peacocks with a MS. in the Library of the Koninkl. Academie at Delft; but differing from Roorda van Eysinga's edition. (Singapore L. L. 297.)

No. 96, 8vo.

(*a*) *Ht. Pĕlandok Jĕnaka* (*vide* No. 67.)

(*b*) Five tales—(1) *Ht. Fakir,* the story of a poor man who suddenly became a court favourite but losing favour lost his life. (2) *Ht. orang miskin yang bĕrnama Isahak* who in place of reward for loyalty nearly lost his life but later won the king's favour. (3) *Ht. Raja Jumjumah dĕngan anak istĕri baginda,* which agrees with the Leyden Codex No. 1401 (*vide* Meursinghe's "Leesboek" 1st part) but has nothing in common with the *Ht. Raja Jumjumah* translated in the "Asiatic Journal," March 1823. (4) *Ht. anak saudagar bĕrsahabat dĕngan orang kaya dan miskin.* The adventures of a merchant's son who tests his friends (Is this Tale 21 of the *Ht. Bayan Budiman?* R. O. W.) (5) *Ht. anak saudagar mĕnjadi raja.* Following the instructions of his dying father a merchant's son marries his three sisters to three beggars, really three powerful spirits, and becomes a raja.

No. 98, small 4vo. *Ht. Indra Jaya Pati.* The hero, son of Kalawandu king of a realm in the west called Langkam Jaya is carried off in his seventh year by a spirit in the shape of a tiger to the mountain Mahabiru where the tiger vanishes after handing him over to Narada to learn magic. When Narada turns himself into a giant and a Garuda, Indra Jaya Pati alone of his pupils faces him. Finally the hero marries princess Chindra Nur Lela and is made heir apparent by his father under the title of Maharaja Bikrama Indra.

No. 151, 12vo. *Ht. Ular Nangkawang*: incomplete. (*Vide* MS. 7 British Museum *infra.*)

No. 210. *Ht. Dewa Mandu* or *Ht. Kangsa Indra Pikrama Raja*: incomplete.

No. 227. *Ht. Raja Dewa Maharupa.* Dewa Maharupa is a son of Darma Dewa prince of Naripatma. Hunting a silver deer Darma Dewa is lost in the wilderness. Dewa Mahasakti pitying him descends and asks what most he wants. He gives him a bezoar-stone by whose magic virtue Darma Dewa gets his son. The magic stone brings the child whatever his heart desires. He succeeds his father with the title Maharaja Mahadewa. According to the colophon the story is called also *Ht. Maharaja Mahadewa.*

No. 228. *Ht. Parang Puting.* In a King's College MS. it is named the *Ht. Budak Miskin bĕrgĕlar Raja Mambang Dewa Kĕindĕraan.* The 2 MSS. differ little. The *Budak Miskin* is the son of the prince of Langkam Jaya and is brought into the world by the magic of Mambang Sagara Indra. He is born in the forest where his mother had been banished on account of her pregnancy. One of his feats is a fight with a sea-dragon, the oppressor of a princess.

No. 285, small 4vo. *Chĕrita Khoja Mubarak* or *Ht. Khoja Maimun* i.e. the *Ht. Bayan Budiman*: containing 22 tales. (See Winstedt's edition of this Malay version of the "Tales of a Parrot.")

No. 292, small 4vo. *Ht. Salindang Dalima,* a prose version of the well-known poem. Dewa Pri, prince of Bandan Pirus, lost life and kingdom owing to a Garuda. He left two children, the elder a daughter Sri Benian, the younger a son Bangsakara. Sri Benian bears a child, son of Dewa Laksana who had transformed himself into a pomegranate: hence the child is called Si Dang Dalima. Before she dies she puts the child in a chest and gives it to her brother with a request not to open it. Bangsakara travels and comes to a kingdom whose ruler has just died. He is chosen by a sagacious elephant to succeed to the throne. He marries the seven daughters of the dead ruler. To the youngest and dearest he entrusts the chest telling her not to open it. The elder sisters break the injunction and find in it a beautiful girl. Fearful she will win the king's heart by her beauty, they smear her with charcoal, set her to menial tasks and beat her when she lets the chicken eat the *padi.* Her only amusement is to sing. At last one day when the king was setting out for Tanjong Puri, Salindang Dalima besought him to visit the island of Bandu on his return to fetch her a certain rattan, predicting storm and contrary winds if he forgets. The king forgets and is driven out of his course. Then remembering he gets the rattan, whereof the girl made a swing. The king discovers who she is and hands the six cruel princesses over to her to punish. She punishes but forgives. One day her father Dewa Laksana, son of Mengindra and princess Chahaya Sinar, descends from Kumala Ratna, discovers and embraces his daughter, then fights and conquers the Garuda and reigns over Bandan Pirus. He gives his daughter in marriage to Raja Udara, son of Raja Diwangsa, prince of Tanjong Puri.

No. 295, small fol., 70 pp. *Ht. Nabi Yusuf.* Shorter but resmbling the MS. translated in the "Indo-Chinese Gleaner" April 1821.

No. 327, small 4to. *Charita Taifa,* containing the first 10 tales of MS. No. 285. The introduction about the parrot and his master is omitted: and in place there is a discourse on the solace the romance brings. Resembling No. 285 closely in style and language, it differs in substituting Malay for Persian names.

No. 373 fol:—

(*a*) *Ht. Muhammad Hanafiah* (Singapore R. L. 372.)
(*b*) *Ht. Shah-i Mardan* (or *Ht. Indra Jaya.*)
(*c*) *Ht. Pĕlandok Jĕnaka* (*Vide* No. 67 *supra.*)
(*d*) *Ht. Nabi Muhammad salla'llahu alaihi wa-sallama bĕrpĕrang dĕngan Raja Khaibar.* (*=Ht. Raja Khaibar* R. O. W.) It is a slipshod MS. written by Isahak and Ahmad of Kedah.

No. 374, small 4to. *Ht. Muhammad Hanafiah*—closely agreeing with No. 373 (*a*).

No. 375, small 4to. *Shaer Jaran Tamasa.* The poem relates the adventures of Jaran Tamasa and Kani Lamlam Arsa daughter of Temenggong Singa Angkawa at the court of Majapahit. A vizier Aria Senapateh left three sons Baya Santika, Gagak Rajasa and Jaran Tamasa, who were adopted by his king.

The following 2 MSS. in Latin characters are in the Mackenzie collection:—

No. 61. *Babat Sĕkandar,* a medley of Malay, Javanese and Dutch: purports to be translated by a European in 1731 A.D.

No. 64. *Buk Charitra Rama* 95 pp.; full of Javanisms. The first section tells of Dasarata, his wives and children; the second of Rasi Kala, father of Sinta and the planting of the forty palms.

Finally prefacing a Javanese MS. of the *Jaya Langkara* is a *Salasilah Rasulu'llah* beginning with Muhammad and ending with Sunan Ratu of Giri Kadaton.

De Maleische Handschriften in het Britsch Museum. (*Bij. T. L. en Vk.* 3,° Vol. 6, 1871 pp. 96-101). Under this title G. K. Niemann gave a catalogue of 24 Malay MSS. in the British Museum (Nos. 12376-98) acquired from John Crawfurd's collection: he added that the Museum owns Malay MSS. obtained from other sources which are not included in his list. The MSS. are as follows:—

1. *Hikayat Dewa Mandu,* 430 pp.; looks old. Also a Javanese version in the library of R. A. S.
2. *Muhammad Hanafiah,* 372 pp. (Singapore R. L. 372.)
3. *A book of moral maxims,* 112 pp. A sort of short version of the *Taju's-salatin.*

4. *Hikayat Bahari Kala,* 194 pp. Really a MS. of the *Isma Yatim.* (Singapore L. L. 297.)
5. *Kĕra Mas,* 110 pp. or *Misa Kĕmĕtar Ismu Rĕnchana.* Probably from the Panji-cycle. The story of *Kĕra Mas* comes on p. 56 foll. Cf. Werndly's *Ht. Misa Gomitar* (Boekzaal No. 39.)
6. *Dang Sarat,* 136 pp. A metrical romance. An unnamed prince of Johor weds a princess of Patani and so unites the kingdom: later he quarrels with her over another love, Dang Sarat.
7. *Ular Nangaong,* 182 pp. A king of Kĕmbayat had seven daughters. One day jokingly they wished for husbands. All wished for princes, *dewa* or *mambang,* except the youngest who wanted *Ular Nangkawang.* Cast out by her sisters she wanderes in the forest. The serpent is Raja Nila Indra Mambang-mambang Raja Mambang Dewata of the land of Bustan Sari, who owing to his mother had for three years turned into a serpent. They marry.
8. *Chĕrita Panji,* 156 pp. The *Ht. Charang Kulimâ.*
9. *Hang Tuah,* 470 pp. Written in Kedah. The same redaction as the MS. belonging to the Royal Asiatic Society.
10. *Putra Ganga,* 446 pp. A romance of Maharaja Dĕrma Dewa.
11. *Sultan Mĕngindĕra Chuacha,* 136 pp. Apparently a shorter redaction of the *Ht. Indĕra Kĕyangan.*
12. *Journal kept by a Malay who accompanied an English gentleman from Penang to Bengal,* 100 pp. History of a journey to Bengal by Mahomed the teacher of Mr. Robert Scott.
13. *Misa Taman Jayeng Kĕsoma,* 226 pp.
14. *Shah-i Mardan,* 160 pp.
15. *Maarifat,* 46 pp. A metrical romance.
16. *Dalang Wesa Purba,* 70 pp. Apparently the *Ht. Nyai Kĕsoma.*
17. *Simbu* (=*Lĕmbu*) *Mangkurat* = *Ht. Raja-Raja Banjar dan Raja-Raja Kotaringin.*
18. *Ht. Raja Babi,* 206 pp.
19. *Sultan Maulana,* 84 pp. A poem on Sultan Maulana Ahmad Taju'd-din and the attacks of Siam on Kedah and Patani.
20. *Undang-Undang Mĕlaka,* 98 pp.
21. *A work on ethics,* 74 pp. Deals with Bone and Goa in S. Celebes.

22. *Adat Mĕlayu* or *Undang-Undang Mĕlaka,* 90 pp. Corrupted. Dated 1236 A.H.

23. *Miscellaneous papers and letters,* 150 pp. Letters from Europeans and from natives.

24. *Miscellaneous in Malay.* Fragments of Malay *hikayat* and of Bugis works.

Beschrijving der Maleische Handschriften van de Bibliotheque Royale te Brussel (*Bijd. T. L. en Vk.* 7,° vol. 6, 1908.) In this article Professor van Ronkel describes 10 Malay MSS. at Brussels (Nos. 21507-16) one may hope still surviving the devastation of war.

No. 21507. *Taj as Salatina,* 104 pp. Complete. Dated 1823 A.D. (Singapore L. L. 307.)

21508. *Ht. Kalilah dan Daminah,* 222 pp., 1823 A.D., used by Gonggrip. (Singapore L. L. 295.)

21509. *Ht. Indra Putra,* 100 pp. Apparently old.

21510. *A Panji tale,* 312 pp., 1824 A.D. No other copy known.

21511. *Ht. Dewa Asmara Jaya,* 474 pp. (Leiden codex 3243-3254.)

21512. *Ht. Maharaja Bikrama Sakti,* 220 pp. Also called *Ht. Nakhoda Muda.* Dated 1823 A.H.

21513. *Ht. Charang Kulina,* 508 pp. (Br. M. No. 8, R. A. S. No. 14.)

21514. *Bustan as Salatina,* 276 pp. The 7th book.

21515. *Ht. Dewa Mandu,* 516 pp., 1823 A.D.

21516. *Ht. Jauhar Manikam,* 80 pp.

Catalogus der Maleische handschriften van het Koninklijk Instituut voor de Taal-Land-en Volkenkunde van Ned.-Indie (*Bij. T. L. en Vk.* 7 No. 6, 1907.) A catalogue by Dr. Ph. S. van Ronkel of the Malay MSS. at the Hague.

1. *Ht. Ahmad Muhammad,* 516 pp. MS. 608.

2-4. *Ht. Indra Putra,* 3 copies, MS. 542, MS. 525, MS. 221.

5. *Ht. Shahi Mardan,* 75 pp., MS. 524.

6. *Ht. Sultan Ibrahim,* 57 pp., MS. 607.

7. *Ht. Sang Bima,* 121 pp., MS. 633.

8. *Ht. Abu Samah,* 51 pp., MS. 607.

9. *Ht. Amir Hamzah* I, 282 pp., MS. 420. Contents as in Leiden MSS. Nos. 1697 and 1698. II, 360 pp., MS. 528. (Singapore R. 471.)

10. *Ht. Nabi Mi‘raj,* 190 pp., MS. 605.

11. *Ht. Nabi bĕrchukor,* 15 pp., MS. 569.

12. *Ht. Nabi Wafat,* 68 pp., MS. 569.

13-14. *Sajarah Malayu,* I, 285 pp., MS. 631. A copy of the longer version as printed by Shellabear: differs verbally a little. (van Ronkel has described the additional matter given by Shellabear in *Tijd. N. I., T. L. en Vk. deel* XLIV pp., 358-373.) He quotes the *chiri* in this Catalogue, II, 32 pp., MS. 587, Latin characters.

15-16. *Undang-Undang Minangkabau,* I, 247 pp., Latin characters MS. 570. Also called *Surat Tambo Raja.* II, 121 pp., Latin char., MS. 222 (1).

17-18. *Charita Bangka,* I, 112 pp., MS. 541, II, 145 pp., Latin char., MS. 586. Described by F. S. A. de Clerq in the *Bij. K. Inst.* XLV, pp. 113-163.

19. *Sajarah Raja-Raja Riau,* 181 pp., MS. 630. Also known as *Ht. nĕgĕri Riau, Silsilah Raja Bugis, Aturan Satia Bugis dĕngan Mĕlayu.*

20. *Ht. Salasilah Perak,* 103 pp., MS. 632. (This is, as the extracts and description prove, the *Misa Mĕlayu,* edited by R. O. Winstedt, Methodist Publishing House, Singapore 1919.)

21. *Charitĕra Nĕgari Jambi,* 10 pp., MS. 538. Down to 1838 A.D.

22. *Ht. Nĕgari Jambi,* 33 pp., MS. 205. (Leiden Codex 2013.)

23. *Charieta sabab jatoh kuasa Sultan Jambi,* 32 pp., MS. 207.

24. *Charita Adipati Wira Tanah Datar,* 31 pp., MS. 215 *a.* Translated in *Bij. T. L. en Vk., Kon. Inst.,* deel VI pp. 292-306.

25. *The Coming of Islam to Preanger,* 17 pp., MS. 215. Translated in *Bij. T. L. en Vk., Kon. Inst. deel* VI, pp. 307-313.

26. *Charita Siam,* 27 pp., (Latin characters), MS. 534. (Leiden Codex 2011.)

27. *Salasilah Raja-Raja di--dalam nĕgari Palembang,* 37 pp., MS. 531.

28. *Charita Raja-Raja di-dalam nĕgari Palembang,* 23 pp. MS. 531.

29. *Sajarah Raja-Raja Palembang,* MS. 527.

30. *Charita Nigrie Palembang,* 36 pp., MS. 196.

31. *Charita aturan Raja-Raja di-dalam Nĕgri Palembang,* 17 pp., (Latin char.) MS. 201.

32. *Ht. Mahmud Badruddin,* 9 p., (Latin char.) MS. 201*a.*

33-34. *Contracts with Palembang.*

35. *Turunan Raja Luwu dan Raja Soppeng,* 17 pp., MS. 634.

36. *Turunan Raja* بارڠ ڤيلات 1 p. MS. 555 (1).

37. *Charitĕra Manggarai,* 2 p. MS. 555 (2).

38. *Undang-Undang Bandar,* 22 pp., MS. 540.

39-52. Various *Undang-Undang*—Minangkabau, Palembang, Mokko-Mokko, Bangkahulu, Musi Hilir, Malang etc.

53-54. Translation from Haruko and Oma into Malay.

55. *Pantuns,* 6 pp., MS. 533 (Many Minangkabau words.)

56. *Shair Alif Ba Ta,* 10 pp., MS. 635.

57. *Shairs,* 41 pp., MS. 629. (It gives unusual numeral equivalents for the *abjad* in astrological reckonings.)

58-59. *Mohammedaansche wetten,* 11 pp., MS. 580 and MS. 579.

60. *Tables of Moslem inheritance,* 2 pp.

61-62. *Bidayat almubtadi bifadl Allah muhdi,* 105 pp., MS. 625, 77 pp., MS. 628.

63-64. *Moslem doctrine,* 176 pp., MS. 624, 49 pp., MS. 626.

65. *Mysticism,* 44 pp. MS, 627. (According to the *shatarriah* and *nakshbanddiah tarikah.*)

66. *Kitab Ta'bir,* 137 pp., MS. 604.

67. A Cosmogony, 2 pp., MS. 535—*awang lagi awang*; *bĕlum ada jadi aras kerusi,* etc.

68-80. Various letters and reports from Sumatra and Java.

81. *A book on Creeses.* 21 pp. (Latin char.) MS. 529. Apparently from the Javanese.

82-93. Lists of words, etc.

⁂

Malay Works known by Werndly in 1736 A.D.

By R. O. Winstedt.

Werndly's *Maleische Spraakkunst* and its appendix *Maleische Boekzaal* was printed in 1736 and is no longer easy to obtain. I extract from it the list of Malay books known to Werndly at that time, adding also comments, where they are of interest.

1. *Usul Ugama Islam.*
2. *Idah Ugama Islam.*
3. *Idah a'l-fikh.*
4. *Bustanu's Salathin.*
5. *Taju's-Salathin* or *Makota sĕgala Raja-Raja.*

   "It contains many moral precepts and tales and is at the same time written in a very good and clear style. It is one of the best books in the language to read."
6. *Tafsir al-Koran.* "The Koran in Arabic with an interlinear Malay translation."
7. *Tauhid.*
8. *Hafiz iman u'l-mu'min.*
9. *Hikayat Dzu'l-Karnain*:—The purport of the romance is that Alexander the Great conquered the world to convert peoples to the faith of the God of Abraham. The book is composed in very good Malay and adorned with very few strange words; it is written in a clear easy style and is therefore very useful for the study of the language."
10. *Hikayat Isma Yatim*—"The language is good and the style concise."
11. *Hikayat Ambon.*
12. *Hikayat Amiru'l-mu'minin Omar.*
13. *Hikayat Indra Sakti.* "The book is full of romantic tales of the old heathen religion with a miracle on every page. It contains some words of the old language but otherwise the style is not difficult."
14. *Hikayat Indraputra.*
15. *Hikayat Acheh.*
16. *Hikayat Bayan*—"A description of the ingenuity of a parroquet."
17. *Hikayat Bakhtiar.* "The history of the Persian king Azbakh."

18. *Hikayat Burong Pingit*—" A tale of a maiden kept shut up under the allegory of a caged bird."
19. *Hikayat Tanah Hitu.*
20. *Hikayat Jauhar Manikam.*
21. *Hikayat Hamzah.*
22. *Hikayat Datia Pĕrjangga.*
23. *Hikayat Dewa Raja.*
24. *Hikyaat Raja Busman dan Lokman.*
25. *Hikayat Raja Tambikbaya*—in verse.
26. *Hikayat Raja Sulaiman.*
27. *Hikayat Raja ʻAjami Azbakh.*
28. *Hikayat Raja Kuripan.*
29. *Hikayat Raja Kĕmboja.*
30. *Hikayat Raja Nila Datia Kuacha.*
31. *Hikayat Rangga Rari.*
32. *Hikayat sĕgala Susuhunan.*
33. *Hikayat Abdullah ibn Omar.*
34. *Hikayat Kalilah wa-Daminah.* " It has been printed in Greek and Latin by Sebastiaan Godfreid Starkins and in Dutch under the title of *Voorbeeldsels der oude Wyzen.* It is a good story in a concise style and full of quotations of verses and sayings from the Sanskrit Arabic and Persian."
35. *Hikayat Muhammad Hanafiah.*
36. *Hikayat Miʻraj Nabi Muhammad.*
37. *Hikayat Mir Muhammad* or *Hikayat dari-pada kĕjadian Mir Muhammad.*
38. *Hikayat Mesa Taman Panji Wila Kĕso'ma.*
39. *Hikayat Mesa Gĕmĕtar.*
40. *Hikayat Nabi Muhammad.*
41. *Hikayat Nabi Musa.*
42. *Hikayat Nabi Yusuf.*
43. *Hikayat Hang Tuah.*
44. *Hikayat Charang Kolina.*
45. *Hikayat Jaya Langkara.*
46. *Hikayat Pĕlandok Jĕnaka.*
47. *Hikayat Pandawa.*
48. *Hukum Islam.*
49. *Hukum Haj.*
50. *Hukum Kanun.*

51. *Sulalatu's-Salathin*—"A book of the highest merit for style and matter." (The *Sĕjarah Mélayu* R. O. W.)
52. *Pumun din al-Islam.*
53. *Shaikhu'l Hussainu'l-Kashifi.*
54. *Ilmu Fikh.*
55. *Ilmu Falak.*
56. *Kitabu'l-Faraid.*
57. *Kitabu'llah.*
58. *Kashifu'l-siri'l-tajalli'l-subhani.* by Hamzah Fantsuri. (Vide Essays Relating to Indo-China, 2nd series, vol. II, p. 51, R. O. W.).
59. *Kĕnzu'l-Khafi*—"The Secret Treasure"—"A very fine book dealing with the creation of man, the dead, the grave, of Antichrist, of Gog and Magog and of the Day of Judgment."
60. *Hikayat Kuda Pĕrungu*—"A history of the princes of Jawa."
61. *Mi'rat u'l mu'min* by Shamsu'd-din ibn Abdu'llah (Vide op. cit. p. 52).
62. *Ma'rifat al-islam.*
63. *Nur Muhammad.*
64. *Chĕritĕra dari--pada Sulaiman.*
65. *Chĕritĕra dari-pada Omar.*
66. *Chĕritĕra Raja Dewa Ahmad.*
67. *Chĕritĕra Raja Som'ih.*
68. *Chĕritĕra Kobat Lela Indra.*
69. *Pĕrmata ma'rifat Allah.*

⁂

New and Rare Species of Malayan Plants.

By H. N. Ridley, C.M.G., F.R.S.

SERIES II.

This paper contains an account of some novelties collected of recent years together with various corrections and emendations based on the examination of types in the Kew and British Museum herbaria. Among the new species will be found one of the most conspicuous and striking Fig trees in the lowland country and probably the commonest species. Having been confused in herbaria with a rather less common species, *Ficus Miquelii,* King, a very distinct plant, this abundant tree had no specific name, and there are scarcely any specimens of it in the British herbaria. It forms another example of the overlooking of the common species due to the botanist's idea that what is very common all round him, must be very common in the European herbaria, which is frequently not the case. There is still a great deal to be learnt about the commonest plants in the tropics.

ANONACEAE.

Ellipeia. This genus was founded by Hooker for plants with the characters of *Uvaria,* but with an oblong style, and a solitary ventral or subbasal ovule in the ovary and a one-seeded carpel. The original type was *E. cuneifolia,* to which he added in the "Flora of British India" *E. ferruginea, E. glabra* and *E. nervosa,* while King added *E. leptopoda, E. costata* and *E. pumila.* Of these *E. ferruginea, E. costata,* King, *E. leptopoda,* and *E. cherrevensis,* Pierre, certainly resemble Uvarias, with wide expanded axillary flowers, the petals subequal and lanceolate, and no style. All appear to be climbers.

Ellipeia cuneifolia, Hook. fil. A lofty climber, has the flowers chiefly in terminal racemes, the petals do not expand, they are short and broad, rounded with a depression at the base and extremely unequal, the inner circle being very small. The anther has a broad, round appendage, and there is a distinct style. In the one-seeded carpel the stigma is lateral. I am more inclined to put this plant in the neighbourhood of *Orophea* though I know nothing else like it.

E. pumila, King, is an erect shrub with small unisexual lateral flowers, cylindric carpels and terminal style. It seems to me extremely near *Popowia Hookeri,* King, and *Polyalthia argentea,* Hook. fil. I think it should be referred to the genus *Popowia.*

Jour. Straits Branch R. A. Soc., No. 82, 1920.

E. nervosa, Hook. fil., is a big tree with extra axillary flowers, the petals all similar, not excavate at the base, the one-seeded carpel with a terminal stigma. The foliage much resembles that of *Popowia nervifolia* and I should be inclined to refer it to that genus.

Ellipeia glabra, Hook. fil. I cannot separate from *Polyalthia.* It will be seen that there are three distinct forms of plants included under the genus *Ellipeia.* The original one is very distinct from anything else known to me. The Uvaria-like species, *E. leptopoda, E. ferruginea,* etc. might be kept as a distinct genus under the name of *Uvariella* distinguished from *Uvaria* by the one-ovuled pistil and one-seeded carpels.

Polyalthia purpurea, Ridl. n. sp. *P. lateriflora* var. *Kallak* Boerl. Ic. Pt. I.

Small tree about 15 ft. tall, glabrous branches, slender longitudinally wrinkled pale. Leaves narrow, lanceolate acuminate, base cuneate, coriaceous, nerves fine 12 pairs; midrib channelled above, reticulations fine, visible on both sides when dry, 8 inches long 2-2.25 in. wide, petiole thick, black, grooved .25 in. long. Flowers in clusters of about 4 on the branches; pedicels rather stout 1 in. long. Sepals ovate, round, pubescent .15 in. long. Petals outer elliptic, lanceolate, 1 in. long .25 in. wide, subacute, purple, inner petals shorter and narrower, acute, all glabrous. Stamens very numerous with flat round appendage. Ovaries very numerous with no style and small stigma, tips pubescent. Torus pubescent. Fruit oblong, blunt, .75 in. long, one-seeded, stalk 1 in. long.

This has long been cultivated in the Singapore Botanic Gardens with no clue to its history, but there is a specimen in Herb. Kew from the Buitenzorg Gardens named thence, *Polyalthia lateriflora* var. *Kallak* Boerl. In Boerlage's diagnosis it is given as Sumatran. *Polyalthia lateriflora,* King, is different from this in flower and foliage and is based on *Guatteria lateriflora,* Bl. Fl. Jav. t. 50. *Polyalthia lateriflora,* Kurz is *P. simiarum,* Hook. fil.

Polyalthia hirta, Ridl. n. sp.

Small tree. Branchlets slender, hairy. Leaves lanceolate acuminate base rounded, narrowed glabrous except midrib beneath, nerves hardly visible above, beneath 7 pairs slender elevate as are the nervules inarching .1 in. from edge, 4.5 in. long, 1.25 in. wide, edges undulate, petioles hairy .05 in. Flowers 1-2 nearly sessile extra axillary .5 in. wide, pedicels very short, hairy, sepals lanceolate, hairy. Petals triangular lanceolate acute hairy outside, glabrous inside. Stamens rather broad with a round flat crest. Pistils about 6, hairy, style short, distinct; stigmas rather large suborbicular, hairy.

Penang, Pulau Butong Reserve (Curtis 2745).

This species is allied to *P. dumosa,* King.

Polyalthia asteriella, Ridl. n. sp.

Tree. Branchlets puberulous. Leaves thin, coriaceous lanceolate acuminate, base cuneate, nerves elevate beneath 10 pairs, 6 inches long, 3 inches wide, petiole thick .2 in. Flowers extra-axillary on a short pubescent peduncle .05 in. with a few small oblong ovate bracts, pedicels .5 in. long, appressed hairy. Sepals 3, short, ovate .05 in. Petals linear, fleshy, very narrow from a broader base .2 in. long, nearly glabrous. Stamens numerous, oblong, appendage flat. Pistils few, about 6, hairy ellipsoid, narrowed into a small style with a large ovoid stigma.

Perak, Taiping Hills (Ridley 2986).

This very small flowered species is allied only to *P. longifolia* in its small narrow petals, but the petals are even smaller and narrower than in that species.

GUTTIFERAE.

Garcinia Murdochii, Ridl. n. sp.

Branches yellow, angled, internodes .75 in., slender. Leaves coriaceous, elliptic, rather abruptly shortly cuspidate, blunt base cuneate, nerves very fine almost invisible on both sides, 3 in. long, 1.5 in. wide. Petiole slender .35 in. Flowers solitary, sessile terminal .5 in. wide. Sepals 4, ovate. Petals 4, obovate oblong, much larger and apparently red. Stamens in a round head 30 or more, anthers peltate, cells 2, crescent-shaped. Female no staminodes. Petals and sepals as in male; pistil subcylindric, stigma very large, cushion-shaped covering the pistil.

Perak, Bikum reserve (Burn-Murdoch 371) male. Borneo, Kuching (Haviland 2339) female.

The Kuching plant has thicker smooth shining leaves with a prominent midrib, but otherwise so far as I can see the two plants agree. The solitary sessile terminal flower is unusual.

Garcinia minutiflora, Ridl. n. sp.

Tree with rough-barked brown terete branches. Leaves coriaceous drying light green, elliptic blunt, almost truncate at top, base cuneate, edge thickened, nerves faint, about 7 pairs, more conspicuous above than beneath, inarching within the edge, nervules and reticulations nearly as conspicuous, midrib prominent beneath, 2 in. long 1.1 in. wide, petiole .15 in. Cymes on tubercles at the nodes less than .25 in. long, 3 branched branches, yellowish, angled. Flowers .15 in. long. Sepals 4, ovate yellowish. Petals 4, oblong ovate larger tip round white. Stamens minute in a globose head, anthers oblong, connective moderately wide, cells linear 2.

Lankawi Islands, Goa Chinta (Curtis 2802) March 1892. Not really like any species known to me in its small light green leaves and very small flowers.

Calophyllum lanceola, Ridl. n. sp.

Small tree. Leaves lanceolate, narrowed nearly equally to both ends, tip acuminate blunt, base acuminate 2 in. long .75 in. wide, petiole .25 in. Flowers axillary solitary or in pairs. Drupe small globose apiculate .25 in. long on slender pedicel .5-1.75 in. long.

Kedah Peak. About 4000 ft. (Ridley 5751).

Allied to *C. parvifolium,* Vesque (*C. microphyllum,* Anderson Fl. Brit. Ind.) but the leaves are quite different in shape. The flowers were all fallen when I found it and no one seems to have got it again on Kedah Peak.

Calophyllum oblongifolium, Ridl. *C. pulcherrimum* var. *oblongifolium,* T. Anders. Fl. Brit. Ind. i. p. 271.

This is quite distinct from any form of *C. pulcherrimum* in its hairy buds, peduncles and petioles and the form of the leaf, the much longer racemes and the flowers nearly twice as large. It occurs in Malacca, Perak, Ulu Bubong and Ulu Slim (Kunstler 10929 and 1885).

Calophyllum neriifolium, Ridl. n. sp.

Tree. Leaves stiff coriaceous, linear lanceolate to narrow lanceolate, blunt, base cuneate, midrib prominent on both sides, nerves very fine and inconspicuous slightly ascending, edge thickened 3.5 in. long .5 in. wide, petiole .15 in. Buds scurfy. Flowers not known. Fruit globose or oblong .6 in. long on a pedicel .6 in. apparently solitary.

Malacca, Mt. Ophir (Ridley 3223).

Kayea parviflora, Ridl. n. sp.

Branches rather slender. Leaves coriaceous lanceolate narrowed to a blunt point, edge thickened, midrib elevate, nerves very faint about 10 pairs, nervules nearly as conspicuous 2 in. long, .5 in. wide, petiole .15 in. thick rugose. Flowers 5-6 in terminal fascicles, very small about .1 in. across, pedicels slender .25 in. Sepals orbicular, petals 4, oblong. Stamens very short.

Perak, Tapah (Burn-Murdoch 382).

The leaves of this somewhat resemble those of a *Calophyllum* but the terminal flowers and stipules are those of *Kayea.*

TERNSTROEMIACEAE.

Ternstroemia penangiana, Choisy.

There has been a little confusion as to this plant owing originally to mixture in Flor. Brit. Ind. of two distinct species. Choisy based his species on Wallich's 4456, *Fagraea dubia,* a plant with broad obovate very stiff leaves. It has since been discovered on Penang Hill by Maingay and Curtis and has not been found anywhere else. With it has been confused *Erythrochiton Wallichianum* of Griffith obtained in Mergui, a totally different plant with thin lanceolate leaves and much larger fruit. This is the *P. penangiana,* Pierre, Fl. For. Cochin China t. 123 (though he figures the flowers far too small) and the *Garcinia acuminata,* Wal. Cat. 4871 A. King's description of *T. coriacea,* Scheff., applies very well to this, but he refers specimens of it collected in the Andamans and Nicobars by Kurz to *T. penangiana.* I have seen no specimens of *T. coriacea,* Scheff., but the description does not quite suit. The plant more resembles the Javanese *T. microcarpa,* Scheff., which has nothing to do with *T. penangiana* to which King refers it. I therefore retain the name *Wallichianum* for it from Griffith's *Erythrochiton Wallichianum.* The plant ranges over the Malay Peninsula from Singapore northwards to Mergui and occurs in the Andamans and Cambodia.

DIPTEROCARPEAE.

Dipterocarpus rigidus, Ridl. n. sp.

Branchlets stout, densely softly hairy. Leaves coriaceous, ovate, subacute; base sharply narrowed, blunt, above glabrous, beneath minutely velvety; nerves 10-11 pairs, sunk above, strongly elevate beneath, hairy, 6 in. long, 4 in. wide. Petiole hairy stout 2 in. long. Panicle 4 in. long, few flowered, glabrous except at base. Flowers large. Calyx narrowly winged, 1 in. long, lobes velvety inside, glabrous outside, 3 lobes oblong, blunt .12 in. long, 2 blunt linear oblong .75 in. long. Petals linear, oblong, grey velvety on both sides, .2 in. long.

Johor, Penyabong (Foxworthy).

Shorea alba, Ridl. n. sp.

Tree. 100 feet tall, 4 feet through, glabrous except inflorescence. Leaves lanceolate caudate acuminate, blunt, base shortly narrowed thin coriaceous, above smooth, beneath nerves 6-7 pairs, elevate 3.25 in. long, 1.5 in. wide, petiole .5 in. transversely wrinkled. Panicles 2-5 in. long white mealy branches

.5 in. Bracts small. Flowers shortly pedicelled, white .25 in. wide. Sepals ovate acute, white tomentose. Petals ovate blunt, woolly all over, not oblique. Stamens 30, inner whorl with short broad filaments shorter than the oblong bifid anther. Appendage longer, densely ciliate ovary conic tomentose to style base. Style rather short, glabrous.

Penang, Batu Ferenghi by the streams near the iceworks (Curtis 3651).

Near *S. barbata*, but the leaves not glaucous beneath and the anthers not bearded.

Synaptea cuspidata, Ridl. n. sp.

Tree. Branches scurfy. Leaves elliptic, lanceolate, long cuspidate, base narrowed, coriaceous, finely reticulate, nerves elevate beneath, 11 pairs, 5 in. long, 1.75 in. wide, petiole 1.5. Flowers not seen. Fruit ellipsoid, scurfy .5 in. long. Sepals larger pair linear oblong, 3 in. long, .36 in. wide, 5-nerved. Smaller ones .75 in. long ovate long acute cuspidate.

Dindings (Coll. Forest Rangers No. 413).

Perhaps nearest to *S. Perakensis*, but the leaves are more coriaceous and finely reticulate, the inner sepals remarkably long acuminate cuspidate.

Vatica? stipulata, Ridl. n. sp.

Glabrous tree? Leaves thin, stiff, coriaceous elliptic lanceolate, base shortly narrowed, tip acuminate, edge thickened, nerves slender, about 6 pairs, reticulations visible; midrib prominent, 4 in. long 1.5 in. wide; petiole slender 1 in. long, thickened and black in upper third. Stipules large persistent, ovate cordate, round 3-nerved 1 in. long, .75 in. wide. Panicles axillary and terminal, very lax, branches slender about 1.5 in. long. Flowers .25 in. long, pedicels slender .15 in. Sepals small ovate, connate for half their length, scurfy puberulous outside and sparingly inside. Petals 4 times as long, linear, oblong scurfy on the back, not twisted. Stamens 10 filaments very short, ovary conic pubescent, grooved. Style columnar. Stigma clavate.

Mount Ophir (Hullett, 781) April 1888.

The fruits of this curious species not having been seen, the plant remains dubious. In the thin slender lax panicles it resembles *V. pallida*.

Balanocarpus Hemsleyanus, King.

Neither in flowers, leaves nor fruit, resembles the typical *Balanocarpus*. It is quite clearly a *Pachychlamys*, a genus allied to *Shorea*, but which I think advisable to keep separate.

STERCULIACEAE.

Tarrietia unifoliolata, Ridl. n. sp.

Big tree. Leaves unifoliolate, glabrous, coriaceous, petiole 1 in. slender, thickened at tip, petiolule jointed on top .25 in., blade elliptic, subacute, base blunt, slightly inaequilateral and narrowed; nerves slender about 18 pairs, 2.25 to 3.5 in. long, 1-1.5 in. wide. Panicle about 4 in. long, pubescent. Flowers numerous .08 in. long. Calyx tube longer than the 5 short ovate lobes pubescent. Stamens column short, thick, andraecium globose, much shorter than calyx lobes. Carpels in female flowers 5.

Malacca (R. Derry).

Native name "Kamuning hutan." Used as timber for construction while the plant is also used medicinally. This species is very near *T. javánica,* Bl. but the leaves are all unifoliolate with slender pedicels. It is possibly a form of that species but I think it will prove, when the fruit is known, to be a distinct plant.

Peniculifera, Ridl. n. gen.

Tree. Leaves alternate distant oblong, lanceolate. Flowers in short axillary fascicles. Petals free to base, oblong, pubescent 5. Petals 5 linear, spathulate, hairy on inner surface. Stamens in a tube, hairy, anthers at the top very small 5, alternating with cylindric processes, 5 large anthers sessile at base of tube. Species one.

Peniculifera penangensis, Ridl. n. sp.

Apparently a tree. Leaves oblong lanceolate, cuspidate acuminate, base round, chartaceous, nerves slender 8 pairs inarching 4-6 in. long .5 in. wide. Flowers about 12 in axillary fascicles, on short .05 in. peduncles, pedicels shorter all pubescent. Sepals .1 in. imbricate pubescent. Petals as long, hairy on inner face, spathulate, round rather thick. Staminal tube as long, funnel-shaped, very hairy.

Penang, Government Hill at 1200 feet (Curtis 3745).

The specimens resemble in appearance *Leptonychia glabra,* Turez.

Leptonychiopsis, Ridl. n. gen.

Tree? branches puberulous. Leaves oblong elliptic cuspidate base blunt, chartaceous alternate stipulate. Flowers small in axillary very short racemes. Sepals 3, valvate. Petals 3. Stamens 6, connate at the base in a ring, filaments filiform, anthers subhastate, blunt alternating with 4 linear staminodes. Ovary hairy 3-celled, ovules anatropous at least 2 superposed. Style filiform, stigma minute. Species one.

Leptonychiopsis parviflora, Ridl. n. sp.

Leaves abruptly cuspidate, nerves 8 pairs prominent beneath; nervules transverse undulate horizontal, midrib and nerves slightly puberulous, 4-6.75 in. long, 2-3 in. wide; petiole puberulous 2 in. Raceme hairy .1 in. Pedicels very short. Flower .25 in. Sepals puberulous outside, linear narrow, blunt. Petals similar in shape. Stamens as long.

Johore, Gunong Pulai (Ridley 3743) brought by native collector in 1892.

This plant has much the habit of *Leptonychia* but has only 3 sepals, and 6 stamens with some staminodes, the ovary 3-celled.

TILIACEAE.

Grewia erythrocarpa, Ridl. n. sp.

Small tree, 12-14 ft. tall. Branches hairy. Leaves lanceolate, acute or acuminate, base round, slightly cordate and inaequilateral, edges sinuate, beneath hairy, midrib sometimes hairy above, nerves 10 pairs, the basal pair often halfway up the leaf, reticulations and nervules prominent beneath 8-10 in. long, 2.1-4 in. wide, petiole .25 in. long, thickly hairy. Panicles 3-5 in., rather compact hanging from below the branches, densely tomentose, hairy, pedicels short. Bracts lanceolate acuminate, green tomentose .2 in. long; sepals linear oblong, white, tomentose. Petals white, reflexed. Disc lobed, yellow. Ovary tomentose. Fruit 1 in. long, pear-shaped, scarlet.

Mountain Forests. Selangor, Sempang Mines (Ridley 15908); Perak, Waterfall Hill (Wray 599).

Mr. Drummond suggests perhaps *G. perakensis,* Drum., but I think it is very distinct, not only in the very long narrow leaves but in the pear-shaped scarlet fruits.

RUTACEAE.

Atalantia cuspidata, Ridl. n. sp.

A spiny bush, branchlets pubescent, spines short, blunt straight. Leaves thin-textured, not coriaceous; ovate elliptic, cuspidate blunt, base round, pubescent on the back, midrib sunk above, elevate beneath the nerves about 6 pairs, very fine, forked at tip 2-3 in. long, .5 in. wide, petiole .2 in. long, pubescent jointed in the middle. Flowers solitary, pedicels .25 in. long. Sepals round, pubescent. Petals 5, linear, oblong .4 in. long, white. Stamens linear, oblong. Ovary cylindric, hairy. Style stout, glabrous. Stigma orbicular. Fruit ovoid, blunt 8 in. long, rind thin, pulp scanty; seeds 2 large, flattened.

Malacca, Sungei Hudang; Dindings, Lumut (Ridley 8391, 9944).

BALSAMINEAE.

Impatiens Klossii, Ridl. Journ. Fed. Mal. States Museums, viii, part 4, p. 24. From the Korinchi Valley, Sumatra. The name is preoccupied by *Impatiens Klossii,* Ridl. Trans. Linn. Soc. Botany xi. p. 23, from New Guinea. The Sumatran species may therefore be known as *Impatiens Bodenii,* after Mr. C. Boden Kloss.

BURSERACEAE.

Santiria minutiflora, Ridl. n. sp.

Tree. Leaves 7 inches long; leaflets 5, coriaceous elliptic to ovate, cuspidate, acuminate, blunt; base broad or shortly narrowed; nerves about 6 pairs, elevate beneath slender, secondary nervules fine and conspicuous 3-5 in. long, 1.5-2 in. wide, petiole .1 in. Panicle lax, axillary 2-3 in. long. Flowers very small, cymose and racemose on the branch ends. Sepals broad, ovate, rather thick, blunt 3. Petals larger, ovate, blunt. Stamens 5, anthers sessile on a shallow cup-like disk. Pistillode round, grooved, style short, thick.

Female flower and fruit not seen.

Johor, Tempayan River (Ridley 13250, 13260).

Distinct in its stiff, rather small leaflets and very minute flowers, about .025 in. long.

Canarium subcordatum, Ridl. n. sp.

Bark whitish grey. Leaves large, leaflets many crowded and overlapping, ovate lanceolate, long acute acuminate base round subcordate, stiffly coriaceous, glabrous, nerves about 30 pairs, slender subparallel, 10 in. long, 4 in. wide, petiole thick .25 in. long. Drupe oblong, triquetrous 1 in. long and 16 in. across the face.

Pahang, Pulau Tinggi (Burkill No. 906).

The specimen I have seen is very poor, only a portion of a leaf and 2 drupes, but I cannot find any species like it anywhere. The foliage is somewhat like that of *C. hispidum,* Bl., but quite glabrous and thickly coriaceous, the fruits somewhat resemble those of *C. Radlkoferi,* Perkins.

MELIACEAE.

Aglaia Kingiana, Ridl. n. sp. *A. Ganggo,* King. Materials p. 65, not of Miquel.

Tree. 30 to 40 feet tall, 10-15 in. through. Leaves imparipinnate, leaflets glabrous, coriaceous, opposite, lanceolate acuminate, base very shortly cuneate 6 or more pairs, nerves 12 pairs, very faint on both sides, 3 to 4 inches long, 1.5 in.

wide, petiole slender .4 to .5 in. Panicle 9 in. long, glabrous, branches spreading 3 in. or less long, branchlets short .5 in. long. Flowers light yellow .05 in. long. Calyx narrowed into a thick pedicel, lobes ovate, round, scurfy. Petals elliptic, blunt edge thinner, glabrous. Stamen-tube shorter open at the mouth. Anthers 5 large exsert, ovary small, hairy. Fruit unknown.

Dense jungle near limestone rocks. Perak, Goping (Kunstler).

This resembles *A. Ganggo,* Miq. in general appearance but the petals are shorter, and not scaly. Typical *Ganggo,* Miq. has narrow leaves, very oblique at the base and an ovoid stamen tube with a small mouth and small not exsert anthers. There is a plant resembling the Goping one named *Ganggo!* from the Buitenzorg herbarium at Kew, but it is not Miquel's plant.

OLACINEAE.

Gomphandra salicifolia, Ridl. n. sp.

Small tree with wiry branches, glabrous except the cymes. Leaves narrow, linear acuminate, base very shortly narrowed, midrib very prominent beneath, nerves invisible above, beneath 4-5 pairs; very short and inconspicuous forming conspicuous loops 3 in. long .3 in. wide, petiole .15 in. Cymes terminal compact, branches very short, peduncle .2 in., puberulous. Flowers crowded, glabrous. Calyx very small. Petals 4, oblong .15 in. Stamens 4, filaments broad, long, hairy below anther, a tuft of hair at the top.

Penang West Hill (Curtis 739 and 1265) at 2,500 ft. alt. Very distinct in its willow-like rather coriaceous leaves.

Gomphandra pubescens, Ridl. n. sp.

Shrub. Branches wiry, pubescent. Leaves lanceolate caudate blunt, base shortly cuneate, subcoriaceous, nerves basal pair running from near the base along the edge, nerves from midrib 6 pairs, midrib pubescent 3-5 in. long, 1 in. wide, petiole .15 in. pubescent. Cymes extra axillary compact .5 in. long, peduncle .25 in. pubescent. Flowers very small. Calyx-lobes large ovate, cuspidate gibbous at base. Petals 4, very short, filaments obcuneate, very short, anther small with a short process at back

Selangor, Weld's Hill, Kuala Lumpur (Ridley).

Remarkable for its very small flowers, and its pubescence.

ILICINEAE.

Ilex pauciflora, Ridl. n. sp.

Tree. Branchlets slender, whitish. Leaves coriaceous, rather thinly lanceolate, acuminate, base cuneate; nerves 7 pairs conspicuous beneath, inarching .15 in. from the margin, midrib bold, sunk above, 4.75 to 7 in. long, 1.25-2 in. wide; petiole .25 in. long. Panicles pseudo-terminal and axillary 3-4 in. long with 5 or 6 remote branches of which the peduncle is .5 in. long, slender and bifurcates with a pair of branchlets .26 in. long bearing 3 or 4 small pubescent cymes of 2 or 3 shortly pedicelled flowers .06 in. across. Sepals triangular acute, pubescent. Petals 4, round, twice as long, free nearly to base. Stamens as long, anthers short elliptic. Pistil conic; style short.

Penang Waterfall (Foxworthy 10454).

The long few branched panicle with short few flowered dichotomous branches is not like anything I have seen.

Ilex illustris, Ridl. n. sp.

Bark blackish, longitudinally ribbed when dry, branches stout. Leaves very coriaceous, elliptic, blunt or minutely apiculate, base narrowed, shining, bright green above, light brown beneath when dry, edge crenate, midrib channelled on upper surface, very prominent below and sharply keeled, nerves about 8 pairs, prominent beneath, widely inarching .12 in. from the edge, secondary nerves nearly as prominent, reticulations wide, prominent, whole under surface minutely areolate 7 in. long, 3 in. wide, petiole stout .75 in. long. Flowers not seen. Fruit on a short .10 in. stout peduncle axillary with 5 or 6 flowers, pedicels .4 in. long, ovary .4 in. long, oblong, globose. Calyx connate, shortly triangular, blunt, 4-lobed. Stigma flat, 4-lobed. Pyrenes 4, backs rounded not grooved .25 in. long, .15 in. through.

Pahang, Gunong Tahan (Ridley 16172).

This fine holly is allied most clearly to *I. purpurea,* Hassk., a Japanese and Chinese species, from which it differs in its large stiff, coriaceous leaves, and much larger fruit with broad thick pyrenes. The crenulations of the leaf are most marked toward the top, and are shallow and distant. The main and secondary nerves are decurrent on the midrib.

SAPINDACEAE.

Turpinia.

In the Materials for a Flora of the Malay Peninsula King gives one species of *Turpinia, T. pomifera,* DC. (by misprint *pomiferes*) and a variety *sphaerocarpa.* De Candolle's species was based on a Nepalese tree which is quite different from the Malay Peninsula one to which Wallich, evidently seeing the difference, had given in his catalogus the name *latifolia*. Wallich's No. 4939 is given for *T. pomifera* and the variety *sphaerocarpa* by King. The variety *sphaerocarpa,* King, is based on *T. sphaerocarpa* of Hasskarl, a Javanese plant which again is different from any plant we have in the Malay Peninsula, and it is clear that King's *T. pomifera* var. *sphaerocarpa* was intended for the commonest of the Malay Peninsula species, but the only specimens named by King in the herbarium I have seen are distinctly different from the common plant. *T. pomifera,* King, (not De Candolle), is only recorded by him from Perak (King's collector 4243), of which there is no specimen here in England and I have no clue as to what it was, but it is improbable that it was the true Nepal plant of De Candolle, *Dalrymplea pomifera,* Roxb.

We have also another very distinct trifoliate plant with large flowers which I propose to describe under the name of *T. trifoliata.*

Turpinia trifoliata, Ridl. n. sp.

A tree. Leaflets 3 distant, elliptic, blunt or cuspidate, serrate subequal, nerves 6 pairs fine, elevate beneath, curved upwards and branching at the top or before reticulations, netted and conspicuous when dry, rather thin in texture, drying light-greenish 6 in. long, 3 in. wide; central petiolule 2-3 in. long, laterals .5 in. long, petiole .2 in. long. Panicle 2-3 in. long, peduncle 1.5 in. long; branches short, dense flowered. Flowers white 3 in. across. Sepals ovate lanceolate narrowed small, lanceolate acuminate, persistent. Pedicels .05 in. Flowers white 3 in. across. Sepals ovate lanceolate narrowed to the round tip .15 in. long. Petals a little longer. Filaments short terete; anthers large, oblong, ovary large conic grooved deeply, narrowed upwards to the style. Stigma distinctly 3-lobed, lobes acute. Fruit ovoid, eventually globose .25 in. through when dry, the three styles as conic processes with grooves between.

Malacca, Nyalas (Goodenough 1771); Selangor, Sempang Mines, Semangkok (Ridley 15906).

Turpinia latifolia, Wall. Cat. 4939.

Tree 30-40 feet tall. Leaves over a foot long of 5 stiff dark green shining coriaceous leaflets, ovate elliptic shortly cuspidate or blunt, base short, cuneate or round or minutely serrate, drying dark fuscous green; nerves very faint above, 4 pairs, elevate beneath, ascending; petioles terminal 2 in. long, laterals .25-.5 in. wide, petiole 3 in. long. Panicles terminal and in upper axils, 3 or 4 terminal, with long 4 in.

secondary peduncles, 8 in. long with spreading branches and numerous small flowers in small cymes of two or three flowers or solitary racemes at the top of the branches. Flowers .15 in. across. Bracts very small triangular, cuspidate. Sepals ovate, blunt .06 in. long minutely ciliate. Petals oblong, blunt, little longer. Anthers small elliptic filaments stout, linear. Styles stout; ovary cylindric, conic not broad and grooved at base.

Common. Singapore, Tanglin; Bukit Mandai, Muar, Bukit Keyara (Fox) Perak, Penang Hill (Wallich 4939) Telok Bahang (Curtis).

Native name Giramong, Geritta.

Turpinia laxiflora, Ridl. n. sp.

A very big tree up to 80 feet tall. Leaves 9-10 in. long, leaflets 5, ovate elliptic, blunt or acuminate entire or minutely crenulate, base round, coriaceous dark green, drying dark brown; nerves fine, 4 pairs ascending as in *latifolia* but fainter 4 in. long, 3 in. wide, petiole (terminal) .75 in., laterals .15-2 in. long. Panicles very lax, slender, spreading 15 in. long, minutely puberulous. Bracts minute, lanceolate acuminate. Pedicels .1 in. longer than the flower. Flowers white 12 in. across, in lax racemes solitary or 2-3 in a cyme. Sepals ovate, round ciliate. Petals much longer, triangular oblong, blunt, minutely denticulate. Stamens short, filaments slender, filiform. Pistil as in *T. latifolia* but smaller.

Singapore Botanic Gardens on the rockery. Perak, Larut (Kunstler No. 2824).

The tree which has white bark sheds its leaves at certain times and flowers when the young leaves develop, but the panicles persist when the leaves are full grown. The young leaves when they first appear are narrow elliptic lanceolate, much longer than broad.

Napeodendron, Ridl. n. gen.

A very big tree entirely glabrous except the flowers. Leaves alternate pinnate with 2—3 pairs of leaflets; leaflets coriaceous. Panicles large, erect, flowers small, white. Sepals 4, ovate. Petals longer 4. Stamens 8, filaments short, thick, hairy, anthers ovoid shortly apiculate, ovary sunk partly in disc 2-celled, one ovule in each cell. Style short, stout. Stigma large, discoid. Fruit unknown. Species one.

Napeodendron altissimum, Ridl. n. sp.

Very lofty tree. Leaves, petiole 2.5 in. long, leaflets alternate or subopposite, coriaceous, glaucescent beneath, elliptic acute, base blunt, nerves elevate beneath 12 pairs, 3.5 to 5 in.

long, 1.75-2.5 in. wide, petiolules thickened at the top .2 in. Panicle axillary and terminal 8 in. long, basal half nude, branches 1.5 in. long. Flowers in short cymes at top .1 in. long, shortly pedicelled. Sepals 4, ovate puberulous. Petals 4, longer oblong puberulous. Stamens 8, outside the disc, filaments broad, thick, oblong, hairy; anther ovoid terminal apiculate. Disc deep annular edge thick; ovary partly free from disc 2-celled 2-ovuled. Style short, thick. Stigma large discoid.

In mountain woods, Ulu Gombak, Selangor.

This tree puzzled me much as I am unable to find any genus described at all distinctly resembling it. I have how-however, referred it to *Sapindaceae*, although the stamens and style are very different from those of any other genus. It was a handsome tree of the habit of *Nephelium* but taller than most.

Curtisina, Ridl. n. gen.

Tree. Leaves imparipinnate. Leaves 4 pairs, coriaceous oblong. Panicle terminal. Calyx 3-lobed. Petals 3 oblong coriaceous, no scales. Stamens 6 outside disc, filaments short, thick, anthers oblong dehiscing along edge. Disc thick annular. Ovary 2-celled, sunk in disc but free, ovules one in a cell. Style conic, short. Stigma small subcapitate. Fruit bilobed or simple, fleshy, red 1-2 seeded.

Curtisina penangensis, Ridl. n. sp.

Tall tree. Leaf 12 in. long. Leaflets oblong with a broad base and narrow to tip, lower ones oblique at base, nerves 8 pairs, elevate beneath, reticulations wide 4.5 in. long, 2 in. wide; petioles .5 in., terminal one 1 in. long. Panicle 4 in. long, branches 1.5 in. or shorter, distant. Flowers numerous, pedicels very short or 0. Calyx cup-shaped with three ovate lobes. Petals 3, oblong, coriaceous, valvate .1 in. long. Stamens shorter. Disc thick, elevate. Fruit pulpy bilobed, lobes rounded, .5 in. wide, red.

Penang Hill at 2,200 ft. (Curtis 3648).

I conclude this to be Sapindaceous from its ovary and fruit and can find nothing at all resembling it in that Order. It has somewhat the appearance of *Dacryodes* (*Burseraceae*) except in the fruit and ovary.

Nephelium Herveyi, Ridl. n. sp.

Tree. Leaves coriaceous, narrow, lanceolate, blunt acuminate base shortly acute, glabrous; nerves about 18 pairs, shining above subglaucous beneath 3-3.5 in. long 1.5 in. wide, petiole .18 in. Panicle 4-6 in. long tomentose. Sepals appressed, tomentose, acute ovate. Petals 5, very small linear, glabrous. Stamens glabrous. Fruit 1.25 in. long, red, covered with flat blunt spines .12 in. long, wide triangular at base.

Malacca, Alor Gajah (Griffith) (Hervey, Maingay 3311 and 1630). Dindings, Pangkor, Boundary of the Dindings (Curtis 1389).

This plant at first closely resembles *N. rubescens,* Hiern, and indeed Hiern included these specimens under it. It differs however, entirely from that plant in the fruit, which instead of having very short scattered processes, is thickly covered with flat triangular based blunt spines after the manner of a Pulassan but broad at the base. The leaves are narrower and more coriaceous.

Tristira penangensis, Ridl. n. sp.

Large tree. Leaves equipinnate 7 in. long. Leaflets 2-3 pairs, opposite oblong, blunt; base cuneate shortly chartaceous, pale glabrous, nerves 7 pairs, ascending elevate beneath, midrib prominent beneath, channelled above 3-5 in. long, 2-2.5 in. wide; petiolules .25 in., petiole 3 in. Panicle terminal, lax 8 in. long. Branches distant lower ones 2 in. long, spreading; upper part of panicles and branch tips pubescent. Flowers numerous fascicled on branches of panicle. Pedicels .1 in. dense, pubescent. Bracts lanceolate, minute, pubescent. Sepals 4, ovate, very woolly, pubescent outside .06 in. long. Petals 0. Stamens short, not exsert 5-7, anthers long, blunt, filaments short, filiform glabrous. Disc irregularly lobed and wrinkled, large, not oblique nor unilateral. Pistil conic 3-angled densely hairy. Stigmas 3, sessile on the narrowed tip, ovules solitary in cells.

Penang, Government Hill 1,200 ft. (Curtis 1086).

I am dubious as to the genus of this plant. It has the general appearance of *Erioglossum,* but it is more closely allied to *Lepisanthes* from which the terminal panicled inflorescence separates it. It seems to be quite apetalous and the fruit is probably triangular and hairy, but ripe fruit has not been seen. It is to be hoped that additional specimens may be obtained from Penang Hill.

LEGUMINOSAE.

Vigna parviflora, Ridl. n. sp.

Stems slender; leaflets lanceolate to ovate, tip narrowed, bases of lateral ones oblique membranous, glabrous, 2 in. long, .5-1 in. wide, petiolules .1 in. or less; hairy, petiole slender 1.5-2 in. long. Peduncles 1 in. long, slender. Flowers few, crowded at tips, yellow, .25 in. long, keel beaked. Pod sword-shaped, acuminate 2.25 in. long, .26 in. wide. Seed oblong, black, truncate at both ends .2 in. long, hilum long.

Sandy places. Negri Sembilan at Seremban; Perak, Tanjong Malim, Kuala Kangsar, Kuala Temengoh.

I cannot identify this plant with any other species. Prain named it *V. vexillata,* Benth., but that has large purple flowers, this very small yellow ones.

Bauhinia flammifera, Ridl. n. sp.

The common *Bauhinia* which forms such a conspicuous mass of colour in the woods of the low country in Selangor and Perak, has been identified by Baker, Prain and others as *Bauhinia integrifolia,* Roxb. In an expedition to Temengoh in Perak I found a very beautiful and distinct species of this group which I later named *B. holosericea,* but on critically examining the plants described as *B. integrifolia* in the Kew herbarium, I find that the original *integrifolia* of Roxburgh (of which there are specimens at Kew with his writing attached) is *holosericea* from Penang Hill, nor can I find any name for the common lowland plant to which I therefore give the name of *flammifera.*

Bauhinia flammifera, Ridl. is a very lofty climber with obscurely angled twigs, scurfy red, pubescent when young. The leaves are thin in texture, ovate cordate, very rarely entire and usually shortly bifid or retuse at the tip, about 4-nerved and 3 in. long and up to 5 in. wide; petiole slender, 2 in. long and pubescent, the red pubescence running on to the nerves in old leaves. The terminal panicles are as much as 8 in. long and as wide; red, pubescent pedicels .6 in. long. Calyx-tube distinctly shorter than the sepals which are nearly glabrous. The petals are oblong crisped narrowing into the claw .3 in. long, hairy outside; rich yellow turning bright red. The ovary is hairy.

Occurs in the southern half of the Malay Peninsula.

Distrib. Malacca (Griffith); Selangor, common; Perak, Kinta River (814) and Sungei Raya (Kunstler 964), Taiping Hills.

Bauhinia integrifolia, Roxburgh.

Has much smaller leaves especially the ones in the flowering sprays and they are never bifid at the top. Branches and leaves beneath hairy, but sometimes nearly glabrous. The flowers are considerably smaller and the pedicels .8 in.; the rachis is black, hairy with shorter red hairs and the flowers fall off after flowering so as to leave a long bare rachis, very unlike the corymbose-like inflorescence of *flammifera.* The calyx is more hairy, the petals almost bristly. Roxburgh's drawing and description give them as light yellow, but I have seen them turning bright red.

This plant occurs chiefly in the north of the Peninsula: Pahang, Sungei Jelai (Machado); Perak, Kinta (Morton) Temengoh (Ridley 4674); Prov. Wellesley (Kunstler) and Penang (Roxburgh, Wallich, etc.) and Patalung in South Siam.

The whole of this group of Bauhinias seems to be almost confined to the Malay Peninsula with one or two outliers in the Malay islands, and it is a very critical group.

Crudia brevipes, Ridl. n. sp.

Tree 16 feet tall. Bark of branchlets white. Leaves rather thin; leaflets three, elliptic lanceolate, cuspidate, base shortly narrowed, glaucous beneath; nerves 5-6 pairs, anastomosing within edge, reticulations netted, conspicuous, fine 2.5-5 in. long, 1-1.75 in. wide, petiolule .25 in. or less. Raceme slender, 5 in. long, base shortly nude .5 in. Flowers numerous, dense; pedicels very short, under .05 in. Sepals 4, oblong, blunt .08 in. long. Petals 0. Stamens 6, filaments much longer than the sepals, filiform, anther cordate. Ovary woolly. Style glabrous, filiform. Stigma small, cup-shaped.

Province Wellesley, Tasek Gelugur (Ridley 12653).

Native name, Poko Bebaru.

The pedicels of the flowers are very short for this genus, and the flowers themselves very small. I find no more than 6 stamens in the flower and in one bud only 5. This is fewer than usual in the genus.

ROSACEAE.

Coccomelia, Ridl. n. gen.

The small tree *Parinarium? nitidum,* Hook. f., common in the South of the Peninsula and in Sarawak, was referred tentatively to *Parinarium* by Hooker and by King from insufficient specimens, though they pointed out it was not typically *Parinarium* differing in having a cushion-like process at the base of the calyx-tube which in other parts is lined by the swollen bases of the stamens. This hairy process or lining is apparently the disc, and lies on the front part of the tube. The fruit is a small, red pulpy drupe, with a one-celled stone. The stamens are 8-10 in number. This is very different from the typical *Parinarium* in which the carpels are usually 2, the stamens more numerous and the hairy disc seems to be absent, while in no species is the drupe really pulpy or red. In most *Parinariums* the "drupe" consists of a hard brown woody stone without any pulpy pericarp at all. Only *P. Griffithianum* of our species has a thinly fleshy pericarp.

While this plant somewhat resembles *Parastemon* in appearance it is distinguished from that by its possessing 8-10 stamens instead of only 2. It is therefore necessary to found a genus for it and I name it *Coccomelia* (the Greek for a Plum tree), the species thus being *Coccomelia nitida,* Ridl. The southern form from Singapore, Malacca, etc. and from Santubong in Sarawak, has rather narrow lanceolate leaves, the northern form from Penang Hill and Setul heaths has broader leaves, more rounded and larger fruit. Perak specimens seem to be intermediate. I call the northern one *Coccomelia nitida* var. *latifolia.*

LEGNOTIDAE.

Carallia spinulosa, Ridl. n. sp.

Tree or shrub. Leaves thin, elliptic abruptly acuminate, base cuneate edge spinulose, nerves fine and faint 14 pairs, secondaries as prominent reticulations, conspicuous, 4-5 in. long, 1.75-2 in. wide, petiole .2 in. Cymes .4 in. long on a peduncle .2 in., with 2 ovate acute bracts at base of the two branches, cyme branches short with numerous imbricating, round bracts at the top. Flowers sessile .2 in. long. Sepals 6 or 7, triangular, acute. Petals shorter, obovate reniform edges undulate, slightly toothed, with a very short claw, white, as broad as long. Stamens in two rows shorter than petals, one row adnate to the sepals, one from the disc enclosed in the petals. Style columnar, stigma capitate. Disc a thick fleshy ring obscurely lobed. Fruit ellipsoid with persistent sepals .2 in. long (dry) 2-seeded.

Perak, Tanjong Malim (Ridley 11858) Cambodia, Tonkin Dong-Dong (Balansa 1506).

This has been referred to *C. lucida,* Roxb., a plant of south India, collected by himself and never apparently seen again by anyone (King erroneously makes it a form of *C. integerrimum*). This species is very distinct in its thin spinulose leaves, in which one row of the short stamens is adnate to the sepals and the 2-seeded fruit. The foliage resembles that of *C. suffruticosa,* Ridl., but the inflorescence is totally different. Balansa describes it as "*Arbrissea*" but as far as I remember the Tanjong Malim plant which grew near the railway station, was a low, bushy tree.

MYRTACEAE.

Tristania spathulata, Ridl. n. sp.

Shrub 12 feet tall. Leaves crowded at tips of branches, oblanceolate spathulate rounded at tip or shortly blunt, acuminate base long acuminate, very narrowly decurrent on petiole, coriaceous nerves 13 pairs, faint midrib elevate beneath, 2.5 to 2.75 in. long, .75-1 in. wide, petiole slender .25 in.

Flowers not seen. Cymes in fruit 1.5 in. long, peduncle slender. Fruit calyx cupular with short points, .1 in.; valves of capsule broad oblong .25 in. long, tips broad, rounded.

Pulau Battam island (Ridley 5886).

This plant was recorded in King's Materials as *T. obovata,* Bennett, a Bornean plant, a big tree with much thinner and larger leaves and much smaller fruit, the leaves quite a different shape. The only plant I have seen at all resembling *T. spathulata* is a Borneo plant collected by Motley and Haviland with small flowers, but as I have not seen fruit of these specimens and the leaves are thinner, more lanceolate and with more nerves, I refrain from considering it as the same thing.

Eugenia clypeolata, Ridl. n. sp.

A bush. Branchlets angled. Leaves ovate-cordate, blunt imbricating, stiffly coriaceous, nerves very faint about 8 pairs 1 in. long .6 in. wide, petiole .05 in. Flowers in a dense terminal head, hardly appearing above the leaves, about 20. Calyx-tube .18 in. gradually dilating from base, ribbed, lobes rounded 5, persistent. Petals small, calyptrate white. Stamens numerous, short. Style rather long and stout.

Pahang, Gunong Tahan on the slopes beyond the Teku river (Ridley 16022).

I took this for a form of *E. Stapfiana,* but it has larger leaves quite round and cordate at the base and the flowers smaller and the calyx ribbed not pustular.

RUBIACEAE.

Canthium congestiflorum, Ridl. n. sp.

Small tree. Glabrous. Leaves elliptic lanceolate, rather long, acuminate, base shortly cuneate; nerves elevate beneath 5 pairs, slightly sunk above, 5 in. long, 2 in. wide, petiole .25 in. Stipules triangular, cuspidate. Flowers numerous in dense umbels .4 in. through, peduncle .1 in., pedicels as long; bracts ovate lanceolate. Calyx saucer-shaped, hardly lobed, small. Corolla coriaceous, urceolate dilate at base .12 in. long; lobes 5, thick edged valvate triangular, ovate, tube woolly, hairy below stamens. Stamens 5 in the mouth, anthers large, oblong. Style cylindric, rather stout, as long as the tube. Stigma subglobose, grooved, large. Disc low but rather thick, ovary very short.

Johor, Sedenah (Ridley 13468).

The buds of this plant are resinous and the stipules very caducous. The flowers are practically umbellate with two or three ovate, lanceolate bracts, about half as long as the pedicel. It does not at all closely resemble any species known to me.

SAPOTACEAE.

Chrysophyllum Curtisii, King and Gamble.

The flowers of this plant collected on Penang Hill both by Wallich and Curtis have never been described; I find, however, a specimen in flower collected by Curtis just above Grace-Dieu Bungalow on Penang Hill at 2,000 ft. altitude, "a small tree" in Herb. Kew. The flowers are in axillary fascicles of 3-5 on pedicels .2 in. long entirely covered, as are the sepals, with coppery hairs. Two outer sepals ovate, blunt, .1 in. long, hairy, 3 inner sepals much smaller, oblong. Corolla very short, white, lobes rounded 5, with brown streaks in centre, tube very short. Stamens minute, filaments much shorter than the ovate anthers. Ovary red, hairy. Style thick, as long as petals.

The tree seems to be peculiar to the top of Penang Hill.

GESNERACEAE.

Didymocarpus modesta, Ridl. n. sp.

Creeping and ascending, a foot tall, pubescent, hairy all over. Leaves in subdistant pairs, oblong, shortly narrowed at both ends, blunt, .3 in. long, 1 in. wide, petiole .25 in. Flowers in the uppermost axils on slender peduncles .25 in. long or less. Calyx lobes narrow, acuminate, hairy, free nearly to base. Corolla .25 in. long, pubescent, tube cylindric, limb hardly 2-lipped; lobes short, rounded ciliate and almost minutely denticulate on the edge, white. Pistil hairy.

Selangor, Ulu Gombak (Ridley) and Rantau Panjang.

This is near *D. reptans* var. *violascens* but has leaves hairy all over. *Violascens* too has the flowers as large as and with the projecting lower lip of *D. reptans* of Penang Hill, the true form, and the pedicels though not as long are longer than in *D. modesta.* The corolla of *D. modesta* however, is quite small only half as long as that of true *reptans* and nearly regular, the lower three lobes are indeed longer than the upper ones, but are quite similar to them, short and round. The true *D. reptans* of Jack, seems to be confined to Penang. The plants on the main land are the varieties *monticola* and *violascens,* which more or less run into the type of plant.

ACANTHACEAE.

Justicia vegeta, var.

The original type of this from Gunong Mengkuang (Robinson) had large leaves and all the inflorescences axillary and .5 in. long. The plants collected by Kloss on Menuang Gasing had a terminal spike 2-2.5 in. long. This class of *Justicia* usually has terminal spikes and probably this latter is more normal.

Justicia odontites, Ridl. n. sp.

Slender, erect simple herb, 2 feet tall, puberulous. Leaves in pairs 2 in. apart, lanceolate acuminate, base narrowed, nerves slender elevate beneath, 7 pairs pubescent beneath, raphides very abundant on both sides, 31.25 in. long, 1-1.25 in. wide, petiole .75 in. long, pubescent. Spike 2.25 in. long, hairy. Bracts lanceolate acute, narrowed to base, upper ones ovate or nearly rhomboid, green, hairy, .25 in. long. Flowers solitary in axils of bracts, secund. Sepals lanceolate long, acuminate, narrow, green, hairy, longer than the corolla tube. Corolla .5 in. long, hairy outside, lower limb 3-lobed, lobes rounded, apparently pink; anther cells narrow, linear, oblong one half way below the other, tailed. Pistil glabrous.

Johor, Kota Tinggi (Ridley 15423). Allied to *J. secundiflora,* Ridl. but taller, laxer and hairy.

Rungia laxiflora, Clarke in the Materials, does not seem to bear any relationship to *R. minutiflora* or *R. pectinata,* Nees, but is a *Justicia* closely allied to the preceding.

Justicia flaccida, Ridl. Journ. Roy. As. Soc. Str. Br. 57, p. 82. The name *flaccida* has been anticipated by Kurz. The name is therefore altered to *breviflos* under which name it was distributed.

Eranthemum crenulatum, Nees.

It is quite obvious from Nees' description in Plantae Asiaticae Rariores and Wallich's specimens that the plant intended by him under this name was what Clark named later as *E. porphyranthos,* and there is a good picture of the Penang Hill plant under the name *crenulatum* in the Botanical Register t. 279. Nees added some Indian plants to his species as varieties, and indeed they appear to be very nearly allied. Wallich's types were the fully grown form, called by Clarke var. *evolutior.*

Eranthemum graciliflorum, Nees Wall. Pl. As. Rar. 107.

This plant has been passed over by Clarke and others as unidentifiable. The specimen in Wallich's Herbarium No. 2427 was collected by George Porter by the Kosea River in Penang (I do not know where this is), but the plant though in bad condition is I think undoubtedly *E. malaccensis,* Clarke, with rather broader leaves than usual.

Eranthemum album, Nees.

Given by Clarke as from Malacca (Griffith) may be excluded from our flora. The specimens are certainly not the Indian *E. album,* but apparently bad specimens of *E. crenulatum* (*porphyranthos,* Clarke).

Leda chrysea, Ridl. n. sp.

Stem unbranched, woody, creeping and ascending, a foot tall, erect part 6 in. long. Leaves rather fleshy, lanceolate or elliptic lanceolate acuminate, base shortly narrowed, glabrous, raphides very numerous and small, drying black, midrib grooved above, 5 in. long, 1.75-2.75 in. wide, petiole .3 in.-.4 in. long. Spikes 2, terminal, little branched, many flowered 2.5 in. long. Bracts minute, persistent. Calyx dilate at base, lobes lanceolate acuminate .1 in. long. Corolla yellow .25 in. long, tube straight, cylindric, lips .1 in. long; anther cells parallel, oblong on the same level.

Selangor, Ulu Gombak (Ridl.).

Near *L. flava,* Ridl. and *L. lancifolia,* Ridl. but the flowers much smaller and lower lip shorter.

PIPERACEAE.

Piper oreophilum, Ridl. n. sp.

Erect, shrubby, slender, closely brown hairy on branches. Leaves ovate acuminate rather abruptly, base cordate equally lobes short round, upper ones oblong-lanceolate acuminate, base entire, rounded, 4 in. long 1.75-3 in. across, sparsely hairy above; nerves above and beneath with conspicuous nervules and reticulations hairy, main nerves from base 5, above and ascending pair, nervules numerous conspicuous transverse, petiole hairy 1 in. long, sheathing about a third of its length. Male spikes slender .5 in. long on a very slender hairy peduncle as long. Bracts suborbicular with undulate edge. Female spike 1.2 in. long, thick, cylindric. Ovary sunk in rachis, style rather long, distinct. Stigmas short, broad recurved 3. Drupe pulpy .15 in. sunk for one third of its depth, broadly globose, shortly distinctly beaked.

Pahang, Gunong Tahan, in the gulley on the way to the plateau about 4,000 ft. (Ridley 16106).

Allied to *P. stylosum.* This is possibly the imperfectly described *subrubrispicum,* De Candolle, which I have not seen.

Piper Kurzii, Ridl. n. sp.

Erect, shrubby, branched. Leaves coriaceous, glabrous elliptic lanceolate acuminate, base cuneate, nearly equilateral nerves fine, elevate both sides, 2 slender ones from base, 2 pairs stouter above the lowest a little above the base of the midrib; nervules nearly horizontal, numerous fine 4-7 in. long, 2-3 in. wide, petiole .1 in. Male spike slender 1.75 in., peduncle .75 in. Bracts oblong, round. Female spike 1.75 in. long, peduncle .1 in. Flowers rather scattered, short sunk, rachis hairy. Stigmas small, thick, round 3. Drupes small .13 in. ellipsoid with a short point.

Perak, Temengoh (Ridley 14575) Female. Selangor, Batu Caves. Burma, Pegu (Kunstler 2220 herb. Kew) Male.

I believe all these three plants are the same. The species belongs to the section *Pseudo-chavica*, as Hooker has noted on the specimen.

Piper Burkillii, Ridl. n. sp.

Slender climber, internodes jointed, joints slightly enlarged. Leaves membranous, glabrous, lanceolate, slightly unequal at the base, nerves 1 pair very fine close to the edge, then 2 pairs from near the base of the midrib, ascending; then 4 or 5 pairs from the midrib above, all very fine, 3-4 in. long, 1.25-1.35 in. wide, petiole .5 in. long or less. Female spike peduncle .15 in. long, spike 1.5-2 in. long, hairy. Bracts very short, rounded. Ovary sunk in a pit. Stigmas short, recurved, subovate 3-4. Fruit unripe, shorter than the stalk .1 in. long.

Negri Sembilan, Tampin Hill (Burkill 1177).

A. cubeba allied to *P. caninum*. The nervation is quite different, the rachis much more slender and not woolly hairy.

Piper Klossii, Ridl. n. sp.

Scandent, branches smooth rather soft, nodes not dilate glabrous. Leaves rigidly membranous, nearly chartaceous, elliptic, gradually blunt, acuminate, base round or nearly very slightly inaequilateral on one side, a little longer than the other, nerves 1 pair from base with 7 pairs from the midrib horizontal and inarching with the inside pair, glabrous above, sparsely hairy on the back, midrib elevate, thickly pubescent 5 in. long and 2.25 in. wide, petiole .25 in. long, grooved. Peduncle 1.5 in. long. Female spike in fruit 4 in. long, rather thick, puberulous. Bract cup-shaped. Drupe globose with a short point .2 in. long when dry, stalk much shorter than drupe, thick cylindric and sunk in rachis.

Selangor, Gunong Menuang Gasing, Ulu Langat (Kloss).

Certainly a *Cubeba,* as the fruit is distinctly though shortly stalked.

Piper cyrtostachys, Ridl. n. sp.

A glabrous herb; erect, little or not branched about 2 ft. tall, stem herbaceous zigzag, jointed, nodes not swollen, internodes 2 in. long. Leaves membranous, broad, lanceolate acuminate acute, base very unequally cordate: one lobe about .15 in. longer than the other, quite round, edge undulate, penninerved, 2 main nerves on one side rising from close to base of midrib, side nerves above, another ascending and several subhorizontal from both sides 4.5 in. long, 1.75 in. wide, petiole

1.1 in. Male spike slender, cylindric, blunt 1 in. long, peduncle 1.5 in. slender. Bracts round, glabrous, stamens 2, filaments long as bracts, anther oblong, globose. In fruit, peduncle 1.5 in., spike of fruit about 1 in. long, curved into a circle or horse-shoe, with numerous crowded drupes sessile in cup-shaped pits, subglobose with a short round stigmatic base, orange yellow.

Perak, Gunong Berumbun near Telom (Ridley 14013).

This is a very curious and striking pepper, erect and herbaceous with leaves like a *Begonia* and bright yellow drupes on a rachis curved into a circle. I cannot identify it with any of De Candolle's incompletely described species.

LAURINEAE.

Cryptocarya tenuifolia, Ridl. n. sp.

Tree. Branchlets rather slender, velvety-brown. Leaves thin, nearly membranous, oblong cuspidate, base shortly narrowed beneath glabrous, nerves 9 pairs, slender, elevate beneath and pubescent, above nerves slightly elevate and midrib channelled, nervules slender, irregular, inconspicuous, reticulations lax, 7 in. long, 2.5 in. wide, petiole .2 in. long, velvety. Panicles very slender, axillary 1-4 in. long, pubescent. Bracts small, linear, oblong. Flowers sessile, pink, .05 in. Perianth tube obconic, lobes 6 ovate, blunt all appressed, hairy outside, lobes pubescent within. Stamens in rows 1 and 2 with ovate anthers and sparsely hairy slender filaments, anthers 2-celled, glands large, fleshy, blunt. Ovary narrow, conic, style slender, stigma very small.

Selangor, Ulu Gombak (Ridley) March 9, 1915.

Distinct in its thin leaves and very slender branched panicle of small flowers.

Beilschimedia tonkinensis, Ridl. n. sp. *B. glomerata* var. *tonkinensis,* Lecomte, Fl. Indo-china v. 149.

Moderately large tree. Leaves membranous, obovate to oblanceolate, glabrous, blunt or subacute. Cymes axillary pubescent .75 in. long. Bracts orbicular silky, falling off very early. Perianth campanulate, hairy inside and out, lobes oblong, blunt 6.2 in. long. Stamens 1st row, filament long hairy, slender, anther 2-celled, with a short terminal apiculus, row 2 apparently abortive, eglandular or with minute glands at base, row 3, absent. Staminodes small, ovoid.

Setul (Ridley 15465).

Cinnamomum velutinum, Ridl. n. sp.

Small tree. Branches closely softly yellowish woolly tomentose. Leaves opposite above, ovate to elliptic acuminate base round, slightly unequal or slightly narrowed, coriaceous, soft tomentose on both sides at first, later glabrescent above and beneath except the nerves, areolation very inconspicuous, nerves from leaf-base 3, stout elevate beneath, finer above, nervules from outer pair inarching .05 in. from the edge conspicuously, from central to outer pair undulate horizontal, numerous elevated, all invisible on upper surface .5 in. long, 1.75-2.5 in. wide, petiole thick, woolly .25 in. Panicles axillary and terminal, woolly-tomentose 2.5-4 in. long, branches 1 in. or less moderate stout. Flowers .15 in. long on thick short pedicels, woolly. Perianth tube funnel-shaped short, lobes rounded elliptic silky inside and out. Stamens rows 1 and 2, broad, anthers oblong silky, 3rd row oblong, hairy, glands blunt, cordate. Staminodes fleshy sagittate. Style thick. Stigma peltate.

Pahang, Gunong Tahan, Teku Woods (Ridley 16110).

Near *C. mollissimum* of Penang and Perak, but the soft felted tomentum is very different, the leaves more ovate, glaucous with strongly elevate nerves and nervules, inflorescence stouter and flowers larger.

Cinnamomum Kunstleri, Ridl. n. sp.

Tree with spreading branches 30-40 feet tall, stem 8-12 in. through. Leaves coriaceous, very glossy green, purplish when young, elliptic, blunt, glabrous with nerves sunk above, the three main nerves rising .2 in. from base, beneath pubescent hairy, transverse nervules not parallel and horizontal but forked 6-7 in. long, 3 in. wide, petiole thick .25 in. long. Panicle slender, hairy 1-3 in axils, 3-6 in. long (including peduncle 1.5-3 in. long). Branches distant in subopposite pairs 1 in. long, pedicels as long as flowers .08 in., perianth tube very short, silky, lobes ovate, blunt. Stamens filaments rather long, hairy, broad, anthers broad opening with large lower cells, of 3rd row anthers narrower, cells opening laterally, glands cordate, blunt. Staminodes cordate villous.

Perak, Larut, dense jungle, low wet ground, within a 100 ft. (Kunstler 5568).

This has been referred by Gamble to *C. mollissimum*, Hook. f., but it really has much more of the habit of *C. javanicum* from which it is distinct in the venation which is not parallel horizontal but broken up, and the inflorescence which is more slender with few short branches and smaller flowers. *C. mollissimum* is a woolly shrub with much smaller ovate acute leaves.

Nothophoebe condensa, Ridl. n. sp.

Tree. Young parts puberulous, branches black. Leaves chartaceous obovate oblanceolate, subacute, base long narrow, nerves 5 pairs, elevate beneath inarching, transverse nervules slender, few, glabrous 5.5 in. long, 2.5 in. wide, petiole .25 in. long. Panicles small 1.5-2.5 in. rusty-tomentose, branches very short, flowers small, subumbelled on short .1 in. long pedicels, outer lobes much shorter than inner ones rounded. Stamens very short, oblong, anthers nearly sessile, base hairy. Staminodes clubbed, hairy at base. Pistil ovoid, style slender.

Lankawi, Kerap (Aniff) 15473.

Resembles *N. Kingiana* but the leaves are thinner, the panicles much smaller, the anthers broad subquadrate almost sessile glabrous except the hairs at the base, the staminodes clubbed, glabrous except the base and pistil ovoid, not flask-shaped.

Lindera concinna, Ridl. n. sp.

Shrub glabrous except the young parts, coppery silky. Leaves oblong, ovate tip rounded or shortly blunt, acuminate base round or very shortly narrowed, stiff coriaceous glaucous beneath, triplinerved with one or two pairs of nerves ascending from upper part of midrib, transverse horizontal nervules very numerous, close and fine, with fine raised reticulations, 1.75-2.5 in. long, 1-1.25 in. wide, petiole wrinkled .12 in.-.15 in. Umbellules few on short .1 in. thick hairy peduncles, 2-flowered. Flowers sessile. Perianth tube very short, lobes 6, narrow, oblong blunt, inner ones broader and longer, glabrous. Stamens 9, filaments long narrow, hairy, anthers 2-celled glabrous, subovate. Drupe not seen, pedicel obconic, hairy with persistent perianth lobes.

Pahang, Gunong Tahan (Robinson 5455) at 5000 ft. (Ridley 16108).

Allied to *L. rufa,* Gamble, but the leaves more coriaceous oblong, ovate and not acutely acuminate, much less hairy; umbellules peduncled, filaments much longer and hairy.

Lindera caudifolia, Ridl. n. sp.

Small tree with slender branches, quite glabrous except the young leaves and raceme. Leaves alternate, thin, chartaceous, coriaceous, elliptic, lanceolate, base rounded or blunt, bluntly caudate, glaucous beneath, bright green above, nerves 6 pairs, very fine and inconspicuous inarching within the edge minutely areolate reticulate beneath, young leaves finely silky beneath, older with the midrib above channelled pubescent, adults quite glabrous 2.25-3 in. long .75-1 in. wide, petiole .1 in. Racemes axillary pubescent .1 in. long with about 5 peduncles. Bracts oblong, small, silky. Umbellule .05 across containing one flower, peduncle slender .1 in. Bracts 4, orbicular glabrous. Perianth lobes 6, white. Stamens 9, anthers 2-celled ovate, filaments slender, glands small. Pistillode minute conic. Females as in male but stamens reduced to club-shaped staminodes. Ovary ovoid, glabrous narrowed to a short style. Fruit "the size of a pea, black, round, shining."

Penang Hill, 2000 ft. Tiger Hill (Ridley) male. Road to Penara Bukit (female) (Curtis 2447).

A very distinct little tree in its small caudate leaves with very inconspicuous nerves. The lowest pair rises from near the base showing a tendency to be triplinerved. I cannot find any species at all closely allied to it.

LORANTHACEAE.

Elytranthe rubra, Ridl. n. sp.

Branches rather slender, with reddish grey bark and numerous lenticels. Leaves subopposite, rather thin, chartaceous, elliptic lanceolate, blunt acuminate, base cuneate, nerves 3 pairs very fine as are the reticulations, both visible when dry, 3.5 in. long, 1.5 in. wide, petiole .4 in. Cymes .75 in. long, branches rather thick, flowers about 10 or fewer, sessile. Bract ovate acute. Calyx tube cylindric .1 in. Corolla tube dilate upwards from base 1.75 in. long, lobes 6 linear spathulate .4 in. long narrow red. Stamens 6.

Setul (Ridley 15238).

Near *E. avenis,* Don, but the leaves are much thinner, and conspicuously nerved when dry, the cyme-branches thicker and the corolla much larger.

Phacellaria malayana, Ridl. n. sp.

Stems crowded in a tuft, seldom and little branched .3-4 in. long, .1 in. through, red, scurfy when young. Flowers solitary or several together, usually two male to one female. Males cushion-shaped with 4 small valvate acute lobes. Stamens very small, disc large. Female tubular .1 in. long, lobes 4, acute triangular, stigma capitate. Fruit oblong .22 in. long, flattened crowned with the perianth lobes. Seed 1, flat with 5 grooves and plates protruding into fissures.

Selangor, Gunong Mengkuang (Robinson) at 5,000 ft. alt. on a *Loranthus.*

This genus is new to the Peninsula. The other three species known are from Manipur and Tenasserim. This is nearest allied to *P. compressa,* Benth., from Moulmein, differing in the less pubescent bigger branches and much bigger flowers. The specimens collected by Parish, however, are young and in poor condition. The fruit of no species has been hitherto described. It resembles that of *Henslowia* in its having the seed grooved with 5 grooves which correspond to as many shortly intruded plates, but the seed is flat and rather thin, and the spaces between the grooves are rounded and not much elevated.

MYRICACEAE.

Myrica aesculenta, Buch. Ham. Gamble in the Materials for the Flora of the Malay Peninsula identifies our common *Myrica* with this Nepalese species, but *aesculenta* is described as having a fruit as big as a cherry, whereas our species has a fruit no larger than a small pea. Wallich long ago, in the Tentamen Flor. Nepal, notices the differences between the two species and describes the Singapore plant under the name of *Myrica Farquhariana* which is the oldest name for it. It occurs also in Banca and some plants from Sarawak seem to be identical. Gamble also makes a species from Gunong Tahan a variety under the name of var. *auriculata.* This is a bush with oblanceolate blunt shortly acuminate leaves, truncate and auricled at the base with strongly elevated nerves beneath, 3 in. long and 1.15 in. wide. The inflorescence and young parts are quite glabrous instead of being closely pubescent as they are in the lowland *Farquhariana,* and the catkins of the male flowers are on the rachis of a simple spike while the bracts are acute and longer than in that species. It seems obviously specifically distinct and I can find nothing quite like it in the herbarium at Kew. I propose to call it *M. auriculata,* Ridl.

URTICACEAE.

Gironniera hirta, Ridl. n. sp.

Tree. Branches, under-side of leaves (especially the nerves and midrib) and inflorescence densely covered with long yellowish hairs. Buds very hairy. Leaves subchartaceous, broad, elliptic abruptly acute acuminate, base round, smooth above, edge obscurely serrulate, midrib and nerves about 10 pairs elevate beneath very hairy .4-6 in. long, 2-3 in. wide, petiole .15 in. hairy. Flowers not seen. Fruit 1-3 on a peduncle 1.25 in. long, hairy. Drupe ovoid, flattened .25 in. long, densely hairy. Styles hairy, filiform .75 in. long.

Johor, Simpai (Kelsall 4018), Tebing Tinggi (Ridley 11033).

Laportea pustulosa, Ridl. n. sp.

Tree 30-40 ft. tall. Leaves oblong obovate acuminate, base rounded glabrous pale beneath, nerves fine about 12 pairs, midrib with a few hairs beneath, many at the base 4.5-5.5 in. long, strongly armed with stinging hairs. Cymes including the 2 in. peduncle 4-5 in. long armed with stinging hairs. Flowers not seen. Sepals in fruit, ovate acute .05 in. Fruit ovoid with a distinct ridge all round, disc papillose, flat .15 in. long. Style short hooked .05 in. long.

Perak (no locality given) Scortechini. "This is the dreaded Pulutus of the Malays."

The common Laportea in the Malay Peninsula is *L. stimulans*. This plant is peculiar in its achenes which possess a strong smooth ridge running round them, the rest of the flat achene being covered with conspicuous papillae.

Ficus polysyce, Ridl. n. sp.

A medium-sized or rather big tree about 60-80 feet tall and over a foot through with smooth grey bark. Leaves elliptic or lanceolate membranous, dark green glabrous except for a few sparse hairs on the midrib on the back, short acuminate or cuspidate, the nerves elevate beneath, 6 in. long, 1.75-2.5 in. wide or larger, petiole 1.25 in. long. Figs in clusters on tubercles on the stem and larger branches often entirely covering the surface, obovoid with a flat top green occasionally turning dull red .75 in. long and as thick, with a large umbo of very many bracts within the mouth, peduncles .2 in. long. Male flowers near the ostiole shortly pedicelled, the perianth lobes 3, oblong rounded at tip. Stamen 1, anther oblong, filament very short, male flowers stalked without perianth obliquely pyriform with rather long style. Females pedicelled, no perianth, achene globose.

Very common in secondary growth and lowland forests, Singapore Garden jungle: Bukit Timah, etc., very abundant. Johor, Gunong Pulai; Batu Pahat (Ridley 11035); Pahang, Pekan (Ridley 1175); Negri Sembilan, Tampin Hill (Goodenough), Bukit Klana and Bukit Sulu (Cantley); Selangor, Bukit Kutu (Ridley 7627); Dindings, Lumut (Ridley 7207); Perak, Ulu Bubong (Kunstler 10196). Taiping Waterfall (Wray 2668); Penang Gardens (Curtis 1889); Lankawi (Curtis).

Distrib. Bangtaphan (Keith), St. Barbe Isle, south of Singapore (Langlasse).

Native names, Ara Batu, Kelumpong, Kedumpang.

This very common and conspicuous tree belongs to the section *Covellia* and has been confused by King with *F. Miquelii,* as he has named specimens of it with that name, but *Miquelii* is a much smaller tree with the figs smaller and in long racemes from the lower part of the trunk. In this species the figs are borne in tubercles on the branches and on the stem and when at times completely covering and concealing the bark it forms a most striking specimen of a cauliflorous fig. The figs are largely eaten by fruit bats, chiefly *Cynopterus,* which disperse the seeds so that the plant which is never epiphytic comes up commonly in hedges, culverts, etc. It appears to be absent from Sumatra and Java.

Ficus oreophilus, Ridl. n. sp.

Young parts, petioles, midrib and nerves beneath, peduncle and figs hairy with short white hairs. Leaves lanceolate acuminate or acute, base blunt rounded, edge undulate, glabrous above, nerves 2, basal distinct above 4 pairs inarching, reticulations wide 3.5-6 in. long, 1.75 in. wide, petiole .4 in. Stipules lanceolate acuminate. Figs globose .25 in. long, solitary axillary on curved peduncles .25 in. long. Bracts small below a short pseudo-stalk. Bracts of mouth numerous rounded blunt glabrous. Male flowers with 2 thin red oblong perianth lobes free. Stamens 2, anthers oblong, filaments very short. Female flower tube moderate, lobes 2 oblong blunt red. Achene rather large smooth slightly compressed round, style short.

Pahang, Kluang Terbang (Barnes 10903). Teku Woods Tahan (Ridley 16310).

Allied to *F. fulva,* Reinwdt., but differing in the narrow lanceolate leaves and stalked figs, the peduncle is decurved and the bracts are not at the base of the fig, but below a short stalk on which the fig is borne. The bracts of the mouth are much larger and more distinct than in *fulva* and glabrous.

Pilea calcarea, Ridl. n. sp.

A slender fleshy herb branched, glabrous about 12 inches tall. Leaves fleshy thin when dry, elliptic ovate blunt, acuminate base narrowed often inaequilateral slightly serrate crenate 3-nerved, 1.5 in. long, .75 in. wide, petiole 1.75 to 1 in. long, slender. Male cymes .4 in. long or less, peduncle very slender, flowers crowded sessile in very small heads. Sepals oblong. Achene oblong ovoid flattened, very short-beaked .05 in. long.

On limestone rocks, Batu Caves, Selangor (Ridley 13369, 8526).

Pellionia Curtisii, Ridl. n. sp.

Half-shrubby branched plant about a foot tall, glabrous. Leaves alternate oblique elliptic acuminate base narrowed inaequilateral edge at the apex obscurely sparsely serrate above, densely covered with raphides-bundles beneath, minutely scabrid, nerves slender inconspicuous 3.5 in. long, 1.5 in. wide, petiole 0 to .2 in. Male flowers in a cluster at the base of stem about .75 in. through, numerous pedicels slender .2 in. long. Sepals 5, oblong .1 in. long, blunt. Stamens 5, anther oblong, filaments hardly any. Female flowers in a sessile head .25 in. through in the uppermost axil, sessile .1 in. long. Sepals 4-5, lanceolate acuminate, keeled, the keel prolonged into a long subulate point. Stigma penicillate. Achene ovoid flat, pustular (not quite ripe).

Perak, Bujong Malacca (Curtis Aug. 1898).

ORCHIDEAE.

Bulbophyllum (Monantha-parva) nematocaulon, Ridl. n. sp.

Rhizomes long, filiform with oblong erect curved pseudo-bulbs .15 in. long and .25 in. apart. Leaf elliptic lanceolate acute .24 in. long, .08 in. wide. Peduncles slender .5 in. long with a funnel-shaped bract with a subacute limb below the pedicel. Flower hardly .25 in. wide. Sepals lanceolate acute subequal. Petals half as long lanceolate acute base narrowed. Lip shorter than the sepals, entire lanceolate with a very short claw. Column broad, arms short, bifid blunt erect, foot as long as column.

Perak (Scortechini 614).

The specimen which forms a large mass of slender rhizomes on a tree branch has no flowers but there is a good sketch by Father Scortechini of the flower and its structure.

Bulbophyllum (Corrhopetalum) Annandalei, Ridl. n. sp.

Rhizome moderately thick, pseudo-bulbs approximate, truncate conoid .5 in. long. Leaf coriaceous lanceolate blunt narrowed into the petiole 4 in. long, .6 in. wide, petiole .25 in. Scape 3 in. tall with 2 distant sheaths. Flowers 2. Upper sepals ovate .5 in. long, .24 in. wide, subacute deep cream, faintly striped pale brown, edge ciliate, laterals free to near base, 1 in. long, base dilate then slightly narrowed and lanceolate .25 in. wide. Petals ovate .25 in. edge strongly fimbriate. Lip, tongue-shaped, thick, curved, fleshy.

Naunchik. Bukit Besar, at 2,000 ft. on a log across jungle stream (Annandale and Robinson).

Bulbophyllum xanthum, Ridl. n. sp.

Rhizome long .08 in. through with distant conic pseudo-bulbs .75 in. long with thick mass of cylindric roots beneath each. Leaf stiff coriaceous midrib only visible at base, lanceolate oblong 7 in. long, 1 in. wide, narrowed to base. Raceme 4 in. long, many flowered rather lax. Bracts .1 in. long, lanceolate, pedicel and ovary .1 in. Flowers .25 in. across, orange and yellow. Upper sepals lanceolate, laterals broad and gibbous at base, all acuminate subequal. Petals half as long, lip as long as sepals, entire shortly clawed sides at base elevate, limb curved linear blunt fleshy. Column moderate, foot long, arms simple erect acute.

On rocks at 800 feet alt. Flowers orange and yellow. Lankawi Islands, Dayang Bunting (Robinson 6238).

This has the habit of *B. lilacinum,* but the sepals are subequal and gibbous at base, and the lip has no side lobes.

Eria Larutensis, Ridl. n. sp.

Stem tall, stout compressed .4 in. wide. Leaves rather thin, oblong, lanceolate acuminate, base shortly attenuate, slightly oblique, nerves 6 or 7, elevate 6 in. long, 1.25 in. wide. Racemes subterminal 4 over 12 in. long white, mealy with short white hairs in tufts. Flowers very numerous. Bracts lanceolate acuminate deflexed .05 in. long. Pedicel and ovary .25 in. long, white hairy; upper sepal oblong, blunt, laterals very broad nearly .5 in. long and .25 in. wide at base; oblong lanceolate. Mentum as long as sepal, all sprinkled with stellate hairs. Petals linear oblong, blunt, thin smaller than the small upper sepal. Lip .5 in. long, side lobes oblong, blunt; midlobe clawed terminal. part fan-shaped small with a large blunt hairy callus on top, disc mealy from base to tip of midlobe, a conic callus at the base of the lip woolly. Column very short, foot long, narrow.

Perak, Taiping Hills (Curtis and Derry 3712).

Distinguished from all others of this group by its broad strong nerved leaves and large flowers.

Cymbidium rectum, Ridl. n. sp.

A plant with the habit of *C. pubescens* but the leaves erect, very stiff semiterete and deeply grooved, coriaceous 18 in. long, .25 in. wide, bluntly unequally bilobed. Scapes erect, 12 in. long; flowers few, distant. Bracts short ovate acute. Ovary and pedicel 1 in. long. Sepals lanceolate .75 in. long. Petals narrower, yellowish with a purple central bar. Lip hardly lobed, side lobes obscure, rounded, midlobe ovate, blunt with central yellow bar, and a crimson spot near the tip, sidelobes spotted, crimson inside and on outside edge. Column straight rather broad white densely red spotted in front; back purple pink. Anther broad, blunt, yellow. Pollinia 2, connate at top, broad semiorbicular, disc semilinear.

Negri Sembilan, Siliau near Seremban (Genyns-Williams).

I had this plant many years ago, believed to have been found in the Taiping Hills and brought down to Singapore where it flourished and spread in the Botanic Gardens, and was known under the name of *C. erectum,* but Wight had utilised this name for a South Indian species or form of *C. aloifolium.* I appear however, to have never described it being doubtful as to its locality. Mr. Williams found it near Seremban and there was a good drawing of it among his collections of Orchid drawings. It is very distinct in its erect spike and very narrow erect leaves.

ARUNDINAS.

The genus *Arundina* is a very troublesome one as regards species as the forms seem to run into each other and though easy to distinguish in the wild state, herbarium specimens on which much has been based are very unsatisfactory as a rule, and even Lindley got the species very much mixed up.

Arundina bambusifolia, Lindl. Bot. Reg. xxvii. Misc. 2, based on the *Cymbidium bambusifolium* of Roxburgh., is the common Indian species of which I have seen numerous specimens and Roxburgh's drawings. It is a very tall and stout species about 5-7 feet tall with large pink flowers 2-3 in. across, with the sepals and petals rather narrow, the latter not much wider than the sepals. This plant is well figured in Bot. Mag. t. 7284 and William's Orchid Album t. 139.

Arundina densa, Lindl. Bot. Reg. xxviii. t. 38, was based on a plant sent to Loddiges by Cuming and has been accredited to Singapore as its place of origin. The specimens in Herb. Kew in Cuming's herbarium are numbered 2058, Island of Bohol in the Philippines. I have seen nothing like it from the Philippines at all and it is exactly like the superb plant from Mt. Ophir where Cuming also collected. The Mt. Ophir plant which also grows on Gunong Kerbau and other Perak hills is remarkable for the large size of the flowers, very broad ovate petals, large lip and very rich colour. It is the finest cultural species of the genus, the flowers resembling those of a *Laelia*.

It used to be much persecuted on Mt. Ophir, every one who ascended that mountain brought down bundles of it and all the best of the *Spathoglottis aurea* too till there was but little left. Besides this very fine form, we also get a smaller paler but very attractive plant on all our higher hills in the Peninsula. It specially thrives on gravelly islets in the mountain streams where it is often very plentiful. In this form the petals are much narrower than in the Ophir plant and colouring paler and the plant usually only about 3 feet tall with narrower leaves. This more resembles the Indian *bambusifolia*. It is impossible however, to separate it specifically from the Ophir form which I take to be the plant intended by Lindley as *densa,* though the figure in the Botanical Register does not do it justice. Both forms of this plant were in common cultivation in Singapore, but were not as easy to propagate as the next species, and were apt to die out after a time.

Arundina speciosa, Bl. Bijdr. p. 401, t. 73.

I was misled at one time into thinking that this was the same plant as *bambusifolia* and as I knew that a small flowered *Arundina* was very common and conspicuous in Java, and was not the *A. chinensis,* Bl., I was puzzled to know how it was that Blume had not noticed this common species, but rather to my surprise I found that the big pink *bambusifolia* is entirely absent from the Malay islands, and that the common plant in Java and Borneo is the *A. speciosa* of Bl. Blume's descriptions of his two species *A speciosa* and *A. chinensis* are too incomplete to be of much use in identification. *A. speciosa,* Bl. is a short plant usually about 2 feet tall sometimes more, with white sepals and petals and a white lip with a distinct yellow centre patch and a pink tip to the lip. The flowers are much smaller than in *A. bambusifolia.* The colouring varies a little, in the plants in Java the tip of the lip is very pale mauve, and the plants I had from Setul in the north of the Malay Peninsula, and from Sarawak are identical. The plant which grows on precipices of Kedah Peak differed in having the side lobes streaked with brown, the 2 keels on the disc were sometimes connate and the tip of the lip crimson. Very closely allied are *A. philippii* and *Megeniana* of Rchb. f. and I suppose these are the *A. chinensis,* Bl. which has puzzled everyone by Blume's statement that it has 5 keels on the lip, a thing I have seen in no *Arundina* flower. In dried specimens however, it is quite possible to mistake the outer nerves which are then visible for real keels. Blume's plant *chinensis* was, he thought, introduced from China. The Hong-Kong plant has a remarkably deep crimson broad tip to the lip, and the petals and sepals a purer white, and another difference between it and *speciosa,* Bl. is that it, like *bambusifolia,* does not produce bulbils. In *A. speciosa,* bulbils are borne on the sides of the stem especially after the flowers have been cut; these lateral buds have a swollen base about .25 in. through and a stem with leaves like the main stem. They are easily detached and pushed into the ground soon become good sized plants; so easy is the propagation of this plant that it is much the commonest in gardens in the Straits. The plants also often bear more than one raceme at the top.

A. speciosa is not common in the Malay Peninsula. It has been obtained at Setul, and used to be abundant as a garden escape or planted on the railway banks near Kuala Lumpur. On Kedah Peak, it grows on the northern precipices, and I shall never forget my collecting it there. Just between me and it was a large patch of grassy turf, on which I was just about to step when an old Sakai or half-bred wild tribe man who accompanied me pulled me back and gave a kick to the turf which immediately slid off completely and fell about 3,000 ft. into the forest at the foot of the mountain. Had I stepped on it I should certainly have gone with it.

Arundina affinis, Griff. of the Himalayas is a small form with narrow leaves and a deep coloured lip edge, very like the Hong-Kong plant. It runs very near *speciosa,* Bl., and may be made a variety of that. Quite distinct and good species are *A. minor,* Lindl., of Ceylon, with narrow stiff erect leaves quite coriaceous and small flowers, *A. revoluta,* with very narrow grassy leaves and very small pink flowers, which grows by the Taiping Waterfall, and *A. subsessilis,* Rolfe, with small flowers in a compact head.

SCITAMINEAE.

Geostachys densiflora, Ridl. n. sp.

Rhizome stout, woody with strong woody roots; stem over 12 inches tall. Leaves narrow linear lanceolate acuminate long narrowed to the base 16-18 in. long, 1.5 in. wide, petiole .5-1 in. long, slender, ligule narrow lanceolate blunt .5 in. Scape 4 in. long, rachis and pedicels sparsely hairy. Spikes numerous crowded .75 in. long two-flowered, peduncles .4 in. long. Bracts oblong, cuspidate. Calyx spathaceous, long cuspidate pink. Corolla lobes linear oblong, pink. Lip oblong, obovate .75 in. long, buff. Anther linear oblong crest rounded, large. Capsule (young) subglobose crowned with the calyx, ribbed red.

Perak, Gunong Kerbau, 4,000 ft. (H. C. Robinson).

The dense short panicle of spikes resembles that of *G. secunda* but the narrow leaves, hairy rachis, and conspicuous anther crest separate it clearly.

Geostachys primulina, Ridl. n. sp.

Leaf stems tall. Leaves oblong lanceolate, abruptly long cuspidate, base narrowed, 12-13 in. long, 2.5 in. wide, petiole 1.5 in. long, ligule oblong .25 in., sheaths narrow 7 in. long. Scapes 3 in. long, rachis stout densely whitish hairy. Spikes numerous close set, secund 1.5 in. long. Bracts at base ovate ribbed, upper ones larger imbricating. Peduncles very short .1 in. densely hairy. Flowers 2 in a spike, outer bracts oblong cuspidate. Calyx .5 in. long, spathaceous, cuspidate. Corolla .75 in. long, primrose yellow. Anther crestless.

Selangor, Semangkok Pass (Ridley 12029). A much more succulent plant than the other species with broader leaves, and hairy rachis and peduncles.

PALMAE.

Licuala Wrayi, Becc. MS.

Palm 5 feet tall. Leaf 7-lobed, central lobe obcuneate 14 in. long, 4 in. wide at top, teeth short and blunt, .25 in. long, side lobes narrower, the lowest .75 in. wide linear, hardly narrowed to base, petiole rather slender triquetrous 3 ft. 6 in. long thorny half-way, thorns short, hooked. Spadix, peduncle 22 in. long, slender with a long 10 in. papery sheath at base and 2 shorter above with lanceolate acute limb. Inflorescence and free part of peduncle 3 in. long, woolly. Spikes terminal, rachis thick, woolly, the spikes 5, crowded towards top 3 in. long. Flowers white, sessile, on small tubercles, calyx .12 in. long, cylindric, base dilate, slightly dilate upwards, globes irregular pubescent. Petals lanceolate acuminate nearly as long, glabrous. Staminal ring free from corolla, lobes acute.

Perak, Gunong Bubu (Wray) at 4,500 ft. No. 3918.

Beccari named this in Herb. Kew but did not publish it. It is remarkable for the long papery spathes and long peduncled velvety tomentose inflorescence, the spikes crowded at the top. It is closely allied to *L. modesta.*

Licuala patens, Ridl. n. sp.

Stem up to 10 feet tall, 3-5 in. through. Leaves 2-3 feet across; leaflets obcuneate, linear, numerous, 21 in. long, 1.5 in. wide, subequal, teeth 4, broad acuminate .75 in. long, petiole 6-8 feet long, sparsely thorny at base, back rounded, edges sharp .5 in. through. Spadix 3-4 feet long, spathes flattened 12 in. long (the lowest) .75 in. wide, lacerate. Panicles of about 16 spikes, base wide spreading 6-8 in. long, rather slender puberulous with distant flowers. Calyx small, campanulate .05 in. quite entire at first, later with short ovate lobes, all hairy. Corolla very short, glabrous. Fruit " white," oblong globose, peduncled by the persistent calyx and corolla.

Perak, Gunong Bubu (Kunstler 7339) (Wray 3928) 2,500-4,000 ft.

Beccari refers this to *L. paludosa,* and it certainly resembles that species, but the large spreading panicles 18 in. across, and the hairy flowers distinguish it at once. *L. paludosa* is a plant of lowland watery woods, growing in water. This plant is a mountain species.

CYPERACEAE.

Carex breviglumis, Ridl. n. sp.

Leaves long, very slender acuminate ending in a long narrow point, 2 feet long, .25 in. wide, edges scabrid. Culm as long slender, partial panicles narrow, remote 3-4, about 1 in. long on slender peduncles. Male portion narrow short. Female glumes ovate truncate embracing utricle at base, awned, awn scabrid, keeled to base hardly half as long as the utricle, pale greenish. Utricle ellipsoid lanceolate narrow strong and several less conspicuous ribs on each face, scabrid, and short hairy on edges, .2 in. long. Style short, red trifid nut dark brown, narrow lanceolate triquetrous, narrowed abruptly at both ends.

Pahang, Telom Forests at 4,000 feet (Ridley 12865).

GRAMINEAE.

Isachne Kunthiana, var. **denticulata,** Ridl. n. var.

Stiff plant with stout woody stems 2-5 in. tall. Leaves crowded coriaceous lanceolate acuminate ribbed 1.10 in. long, .24 in. wide, edges and back when young ciliate, after the fall of the hairs minutely denticulate, sheaths ciliate, culm 4 in. long, glabrous, branches of panicle 5 or 6, the lowest 1 in. long. Spikelets about 9 on the lower ones shortly or not pedicelled. Glumes i. and ii., lanceolate ribbed purple. Glumes iii. and iv. shorter pubescent.

Gunong Kerbau at 6,600 feet (Robinson); also Borneo, Mt. Kinabalu 8,000 feet (Haviland); Ceylon, (Thwaites 2754).

The ordinary form of *I. Kunthiana* here is a weak slender plant with thin stems soft leaves and short slender panicle of very short branches, the lowest half an inch, the outer glumes pubescent. This variety I take to be a mountain form of it. The Kinabalu plant is intermediate in its thin elongate stems.

Isachne javanica var. **saxicola,** Ridl., Fed. Mal. States Mus. Journ. vi. p. 196, must I think be considered a form of *Kunthiana.* It has the stiff leaves of the preceding variety but almost glabrous and not toothed, the panicle is that of *I. Kunthiana,* typical but glabrous.

Chrysopogon collinum, Ridl. n. sp.

3-4 feet tall. Stem fairly stout nodes glabrous, branched. Leaves linear acuminate 9 in. long, .25 in. wide, glabrous minutely thorny on nerves and edge at tip. Panicle shortly protruding from uppermost leaf 3 in. long; rachis slender, minutely hairy. Pedicels hairy in edge. Callus with a short tuft of brownish hairs. Spikelets .25 in. long. Glume i., lanceolate, narrow shortly hairy on nerves and edge, awn slender about as long. Glume ii., similar, awned edges with long white hairs. Glume iii., shorter very thin sparse hairy, acuminate. Awn on glume iv., slender .75 in. long base dark brown above, pale minutely sparsely pubescent.

Setul Bukit Wang (Haniff 649).

Allied to *C. Wightianus*, Nees, but the spikelets smaller and altogether less hairy, the awns are under an inch long and nearly glabrous, while those of *C. Wightianus* are 2 inches long, stout and conspicuously hairy.

Schizostachyum grande, Ridl. n. sp.

Culms 60 feet tall, 3 inches through, internodes 2-3 feet long, walls thin. Sheaths over 12 inches long covered with white hairs in fascicles between the nerves; leaves very stiff almost coriaceous, oblong with a somewhat abrupt point; base round, narrowed very shortly to the broad petiole, blades smooth, midrib very prominent edge very minutely serrulate or smooth, nerves 28, petiole .5 in. long, .15 in. wide, sheaths flattened; ligule rather large, not bristly. Panicle 12 inches long. Spikelets crowded in tufts .5—1 in. apart. Bracts short, ovate; spikelets very slender .5 in. long, glumes lanceolate mucronate strongly ribbed, glabrous. Pulea lanceolate acuminate. Lodicules two oblong, lanceolate tip white, ciliate. Stamen anthers shortly apiculate.

Selangor, Semangkok Pass (Ridley 8457, 12043); (Machado 11591); (Curtis 3475) Ginting Bidai (Ridley 7787).

This very fine bamboo forms the greater part of the bamboo forest at the Semangkok Pass. Gamble in Herb. Kew suggested it was his *S. latifolium* based on a plant from Kota Glanggi, a much smaller plant with ciliate glumes. Another plant which he has also written up in Herb. Kew as *S. latifolia* is certainly *S. longispiculata,* Kurz, a Javanese Bamboo with very slender stems and much smaller softer leaves. It occurs at Pahang, Kuala Lipis (Machado 11592 and 11593); Selangor, Ginting Bidai (Ridley 7788); Dindings (Ridley 10322 and 8389).

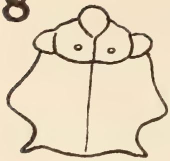
Schizostachyum subcordatum, Ridl. n. sp.

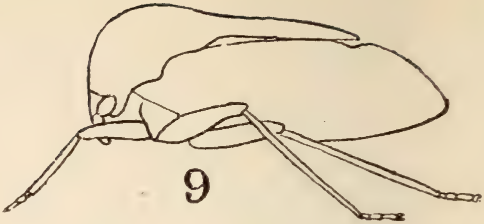
Branches slender. Leaves lanceolate acuminate; base broad subcordate 5-6 in. long, .75 in. wide, midrib slender; petiole very short; ligule very short, no bristles. Panicles simple, numerous in whorls or terminal on leafy branches 3-4 in. long of 7 or 8 clusters of spikelets crowded towards the tip. Bracts ovate mucronate with three ribs from the tip, polished; spikelets very short .15 in. long. Glumes lanceolate smooth. Palea thin, lanceolate acute. Lodicules 0.

Selangor, Semangkok Pass (Ridley 8482). Allied to *S. chilianthum* but differing notably in the narrow lanceolate nearly cordate auricled leaves, and the very small crowded spikelets, which on one spike are crowded into a dense mass 1 in. long. The whole plant appears to be perfectly glabrous.

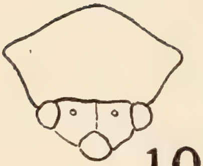
⁂

8

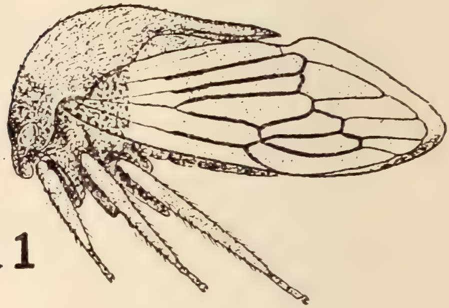




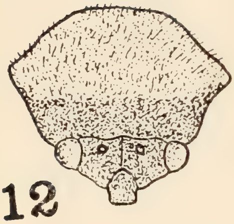
9



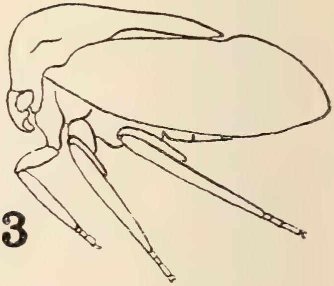
10



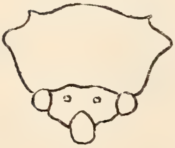
11



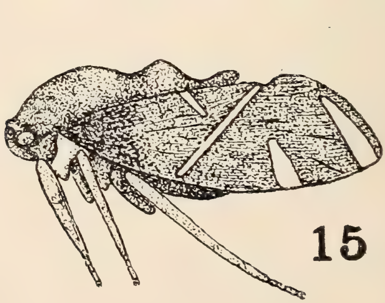
12



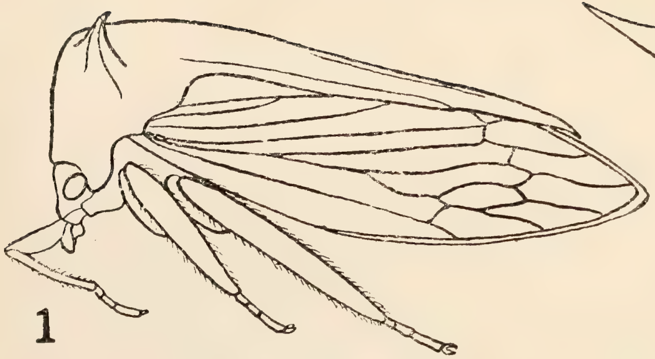
13



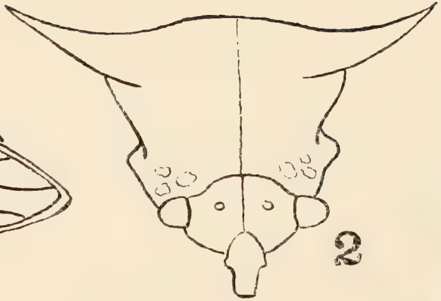
14



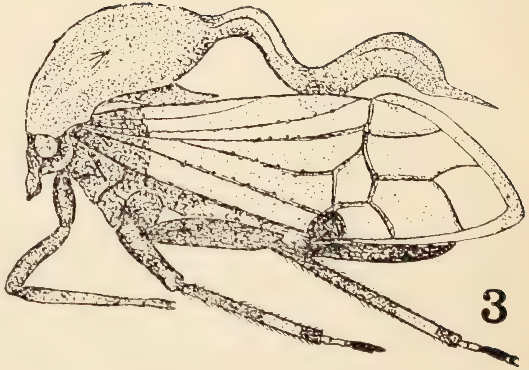
15



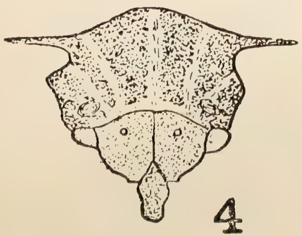
1



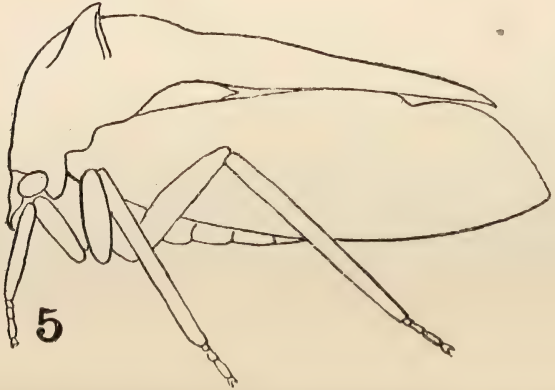
2



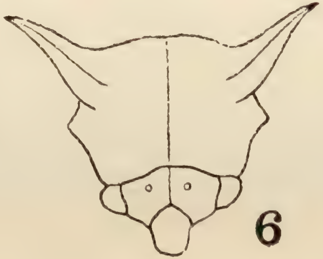
3



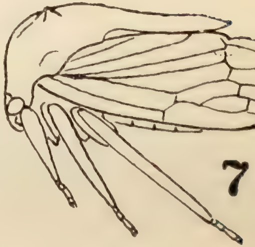
4



5



6



7

New Records and Species of Malayan Membracidae.

W. D. FUNKHOUSER.

(Contribution from the Zoological Laboratory of the University of Kentucky).

In a previous paper[1] record was made of an interesting collection of Membracidae taken by Professor C. F. Baker of Los Banos, P. I., at Singapore and on the Island of Penang during the Summer of 1917.

More recent collecting by Professor Baker has yielded additional new records and species from the Peninsula and from Borneo which are of particular value in adding to our knowledge of the distribution of the species of this family of insects. A comparison of the list of genera and species here recorded with those described from the more distant parts of the mainland[2] and with those inhabiting the Philippine Islands[3] and Ceylon[4] brings out some very suggestive data regarding the extents of faunal areas throughout the East Indies which will be of interest to the zoogeographist.

All of the species here listed were collected by Professor Baker to whom I am indebted for the opportunity of studying the material.

1. **Centrochares borneensis** Distant.

1916. *Centrochares borneensis* Dist. Rhynchotal Notes p. 314.

One male and two females from Sandakan, Borneo. This species is very close to *C. horrificus* Westwood but differs in size, slightly in color, and in the shorter and differently shaped pronotal horns. This is the first record of this species since its original description[5].

---

[1] Malayan Membracidae. Journ. Straits Branch R. A. Soc., No. 79, pp. 1-14.

[2] Cf. Distant, W. L. Fauna of British India, Rhynchota IV: pp. 1-78, 1907 and Appendix pp. 146-182 1916.

[3] Cf. Funkhouser, W. D. Notes on the Philippine Membracidae, Philippine Journal of Science, Vol. XIII: No. 1, pp. 37-38.

[4] Cf. Melichar, L. Homopteren-Fauna von Ceylon, pp. 108-125, 1903.

[5] Distant, W. L. Rhynchotal Notes LIX, Ann. & Mag. Nat. Hist., Ser. 8, Vol. xvii, p. 314, April, 1916.

2. **Leptocentrus leucaspis** Walker.

Add—Locality: Sandakan, Borneo.

One female bearing Baker's duplicate No. 9509. This specimen is somewhat larger and darker than the forms of the species taken at Singapore but I can find no specific differences. It may be a separate variety but could not be so designated on a single specimen.

3. **Leptocentrus obortus** Distant.

Add—Locality: Sandakan, Borneo.

One specimen (Baker's duplicate No. 9407) agreeing in all respects with an unnumbered specimen from Singapore.

4. **Leptocentrus longispinus** Distant.

Add—Localities: Sandakan, Borneo; Island of Penang.

Two specimens, both males, one from Borneo and the other from Penang, differing slightly in the amount of divergence of the pronotal horns, the one from Borneo showing somewhat the wider spread across the tips, but otherwise similar.

5. **Centrotypus securis** Buckton.

1903. *Centrotypus securis* Buckt. Mon. Memb. p. 238, Pl. 54, Fig. 4.

1907. *Centrotypus securis* Dist. Fauna Brit. Ind. p. 34, No. 2147.

1916. *Centrotypus securis* Dist. Fauna Brit. Ind. App. p. 156.

One male and two females, all from Sandakan, Borneo. If I am determining this species correctly, it is very close to *Centrotypus flexuosus* Fabr. The suprahumeral horns are longer and the tegmina slightly different in colour.

6. **Centrotypus asmodeus** Distant.

Add—Locality: Sandakan, Borneo.

Two males and one female.

7. **Centrotypus shelfordi** Distant.

1916. *Centrotypus shelfordi* Dist. Rhynch. Notes p. 315.

One male (Baker's duplicate No. 9822) taken at Sandakan, Borneo. This species should be easily recognized by the very widespreading laminate suprahumeral horns.

8. **Centrotypus brunneus** sp. nov. (Figs. 1 and 2).

A large robust species, entirely brown; roughly punctate; sparingly pubescent; suprahumeral horns very sharp, extending outward and curving upward; posterior process long, slender, sharply carinate above and extending to a point about midway between internal angle and tip of tegmen; tegmina entirely brown, wrinkled, sparsely pilose, coarsely punctate at base; legs and undersurface of body brown.

Head subquadrangular, wider than long, entirely and uniformly brown, roughly sculptured, coarsely punctate, sparingly pubescent with grayish hairs; base of head convex above, highest above ocelli; eyes very large, very prominent, grayish-brown, extending beyond lateral margins of adjoining pronotum; ocelli very large, grayish-brown, farther from each other than from the eyes and situated somewhat above a line passing through centres of eyes; clypeus heavy, brown, roughly sculptured, punctate, sparsely pubescent with grayish hairs twice as long as wide, extending for more than two-thirds its length below the inferior margins of the genae, the tip subtruncate and almost as wide as the base, lateral margins slightly expanded just below inferior line of head.

Pronotum entirely brown, roughly punctate, sparingly pubescent with grayish hairs; metopidium nearly perpendicular, very slightly convex above, three irregular smooth callosities on each side above lateral margins of head; humeral angles large, prominent, auriculate; suprahumeral horns sharp, curved, projecting at first nearly horizontally as seen from the front and then distinctly curving upward, about as long as the distance between their bases, flattened dorso-ventrally, irregularly rugose above, bicarinate below, tips slightly bent backwards, distinct depression on each side between base of horn and base of humeral angle; median carina percurrent, sharply ridged behind suprahumeral horns; dorsum sloping, only slightly gibbous before base of posterior process; scutellum distinctly exposed on each side, brown; posterior process long, slender, nearly straight, very slightly sinuate above, somewhat decurved at tip, dorsal carina high and sharp, a strong lateral carina on each side at base extending from behind base of suprahumeral horn to lateral margin of process about one-third the distance from the tip, tip acuminate, extending beyond the tip of the abdomen and to a point about half-way between the internal angle and the apex of the tegmen.

Tegmina entirely brown, wrinkled, semi-translucent; veins more or less curved in central area; basal half coarsely punctured and sparingly pilose with grayish hairs; five apical and three discoidal areas. Hind wings hyaline, veins blackish, four apical areas.

Undersurface of body brown, sides of mesothorax covered with dense golden pubescence, abdomen darker. Legs brown, tips of tarsi and claws darker, nearly black on the posterior pair.

Length 8 mm.; width between tips of suprahumeral horns 6 mm.

Type: female.

Locality: Sandakan, Borneo.

Unique type in Professor Baker's collection.

9. **Micreune macularum** Buckton.

1903. *Micreune macularum* Buckt. Mon. Memb. p. 213, Pl. 47, Figs. 7, *7a, 7b*.

One female (Baker's duplicate No. 9507) taken at Sandakan, Borneo. This specimen agrees in all respects with Buckton's description and figures. Since the type was described from Borneo I have no doubt but that Professor Baker has here discovered for the species the first new record since its original description.

10. **Micreune formidenda** Walker.

1856. *Micreune formidenda* Walk. Journ. Linn. Soc. I: 93, 49.

1857. *Micreune formidenda* Walk. Journ. Linn. Soc. I: 164.

1858. *Micreune formidenda* Walk. List Hom. Brit. Mus. Suppl. p. 164.

1903. *Micreune formidenda* Buckt. Mon. Memb. p. 213, Pl. 47, Figs. 6, *6a*.

1903. *Micreune formidenda* Buckt. Mon. Memb. p. 268.

1915. *Micreune formidenda* Dist. Rhynch. Notes p. 328.

Two specimens, both females (Baker's duplicate Nos. 9505 and 9506), of this very interesting and bizarre Membracid taken at Sandakan, Borneo. Distant has already reported this species from both Singapore and Borneo[1] and states that another specimen of the same species stands in the British Museum collection under the MS. name of *M. quadrilinea*, labelled by Walker but apparently not described.

11. **Periaman limbatus** Walker.

1857. *Centrotus limbatus* Walk. Journ. Linn. Soc. I: p. 163, No. 116.

One female (Baker's duplicate No. 9824) collected at Sandakan, Borneo. This is a fine large insect and is easily recognized by its almost straight dorsum and the very striking yellow markings on the pronotum.

---

[1] Distant, W. L. Rhynchotal Notes LVI, Annals and Magazine of Natural History, Ser. 8, Vol. xvi, p. 328, Oct., 1915.

12. **Anchonoides variegatus** Funkhouser.

Add—Locality: Sandakan, Borneo.

Three males and one female. The unique type of the species came from Singapore and it is most gratifying to find additional specimens as well as a new locality recorded.

13. **Anchonoides serpentinus** sp. nov. (Figs. 3 and 4).

Entirely black with meagre white pubescence: posterior process very strongly sinuate, apex suddenly acute; suprahumeral horns horizontal, very thin and sharp; scutellum entirely exposed; tegmina hyaline with brown veins on apical three-fourths, basal fourth black, coriaceous and punctate, second costal cell from the base black, coriaceous, punctate and pubescent; undersurface of body black; legs black with yellowish bands on second and third tibiae and tarsi.

Head subquadrangular, about as long as wide, black, roughly sculptured, finely punctate, densely pubescent with whitish hairs; base sinuately convex; eyes large, prominent, brown; ocelli large, dark brown, farther from each other than from the eyes and situated slightly above an imaginary line drawn through centres of eyes; clypeus twice as long as wide, projecting for two-thirds its length below the inferior margins of the genae, black, finely punctate, densely pubescent with sordid-white hairs, tip truncate, lateral margins sinuate; inferior margins of genae having a slight angle on each side about one-third the distance from the clypeus.

Pronotum black, finely punctate, longitudinally striate with grayish-white pubescence; metopidium sloping, punctate, with five longitudinal stripes of whitish pubescence, one extending down median line, one on each side just above suprahumeral horn and another on each side between bases of suprahumeral horns and humeral angles, smooth callosity above each eye; humeral angles prominent and blunt; suprahumeral horns very thin and sharp, arising from a point about midway between the crest of the dorsum and the humeral angles and extending directly outward; median carina weakly percurrent; posterior process very strongly sinuate, one high loop just above the scutellum, another just above internal angle of tegmen, both loops high and bearing lateral carinae, the posterior loop much swollen, tip suddenly acuminate, slender, sharp, extending far beyond the abdomen and almost reaching apex of tegmen; scutellum entirely exposed black, punctate, sparingly pubescent, the base upraised and swollen, the tip strongly bidentate.

Tegmina hyaline for apical three-fourths; base black, coriaceous and punctured; internal angle and apical margin brown; veins distinctly nodulate in central area and strongly brown in apical area; second cell from the base on the costal margin very strongly and sharply black, coriaceous, punctate and pubescent.

Undersurface of thorax uniformly black, irregularly pubescent with white hairs. Abdomen ringed with white and black; the two apical segments black, the next four segments white, the next segment black, the next segment white and the basal segments black, the white segments irregularly but strongly punctate with black dots; the colors of the abdomen easily described through the hyaline portions of the wings.

Legs black with the exception of the basal joints of the tarsi which are white or yellowish and a broad luteous band near the apices of the tibiae of the last two pairs of legs. Tibiae minutely spined and nodulate. Claws strong and black.

Length 6 mm.; width between tips of suprahumeral horns 4 mm.; length of each suprahumeral horn 1 mm.

Type: female (Baker's duplicate No. 9825).

Locality; Sandakan, Borneo .

Type in author's collection.

This is a very striking and distinct species and should be at once recognized by the strongly bisinuate posterior process, the slender suprahumeral horns and the black cell of the tegmen.

14. **Tricentrus pronus** Distant.

1916. *Tricentrus pronus* Dist. Fauna Brit. Ind. App. p. 166, No. 3368.

Two specimens, both females, from the Island of Penang. This species is close to *T. gibbosulus* Walk., but differs in the shape and direction of the suprahumeral horns.

15. **Tricentrus allabens** Distant.

1916. *Tricentrus allabens* Dist. Fauna Brit. Ind. App. p. 166, No. 3367.

Two females, one from the Island of Penang and one (Baker's duplicate No. 9826) from Sandakan, Borneo. In the Borneo specimen the horns are sharper and slightly more recurved than in the specimen from Penang; it agrees more closely with Distant's original description and figure. The Penang specimen may be a variety but I should not like to separate it on the basis of a single specimen. Both specimens have the characteristic white transverse fascia following the black basal area of the tegmen.

16. **Tricentrus truncaticornis** Funkhouser.

Add—Locality: Sandakan, Borneo.

One male specimen. This is without doubt the male of *T. truncaticornis* and is the first record for the sex. The species was described from a female from Singapore with which type specimen the Borneo insect has been compared.

17. **Tricentrus albomaculatus** Distant.

Three females, one from the Island of Penang (Baker's duplicate No. 9388) and two (one bearing Baker's duplicate No. 9406) from Singapore. This species has been previously reported from both these localities[1] as well as from other parts of South India[2] and is apparently common throughout the Peninsula.

18. **Tricentrus brunneus** Funkhouser.

Add—Localities: Sandakan, Borneo; Island of Penang.

Two specimens, both females. It is interesting to note that this species was described from a female from Singapore[3] and that the male has never been recorded. The suprahumeral horns in the Borneo specimen are slightly longer than in the type specimen but I can find no specific differences.

19. **Tricentrus assamensis** Distant.

One male (Baker's duplicate No. 9403) from Singapore. The species which I am determining as *assamensis* is apparently subject to considerable variation and has a wide range. It has previously been reported from Singapore[4]; Distant records it from Assam[5] and I have a series from Teppakulam collected by the Rev. L. V. Newton in 1915. The variation shown in the specimens from different districts is chiefly in size and I can find no characters which would warrant the splitting of the species in the material at my disposal.

20. **Tricentrus repandus** Distant.

1916. *Tricentrus repandus* Dist. Fauna Brit. Ind. App. p. 163, No. 3362.

Two females, one from Sandakan, Borneo, and one from the Island of Penang. This species has not been previously reported from either of the above localities.

21. **Tricentrus congestus** Walker.

1858. *Centrotus congestus* Walk. Ins. Saund. p. 79.
1868. *Centrotus congestus* Walk. Journ. Linn. Soc. X: p. 187.
1886. *Centrotus* (?) *congestus* Atkins J. A. S. B. 55, p. 197.
1906. *Centrotus congestus* Oshan. Pal. Hem. 43, 158.
1907. *Tricentrus congestus* Dist. Fauna Brit. Ind. p. 54, No. 2179.

---

[1] Funkhouser. Malayan Membracidae, p. 6, 1918.
[2] Distant. Fauna British India App., p. 166, 1916.
[3] Funkhouser. Malayan Membracidae, p. 7, 1918.
[4] Journal Straits Branch R. A. Soc., No. 79, p. 6, 1918.
[5] Fauna British India, p. 57, no. 2186, 1907.

1916. *Tricentrus congestus* Dist. Rhynch. Notes p. 329.
1916. *Tricentrus congestus* Dist. Fauna Brit. Ind. App. p. 167.

Two females, one from Singapore and one (Baker's duplicate No. 9386) from the Island of Penang. Since this species was originally described from Hindustan[1] and has since been recorded from Darjeeling (Mann), Calcutta and Tenasserim (Doherty)[2], it apparently has a wide range. The specimens from the Singapore region seem to answer fully the original description by Walker and the more recent description by Distant and if they are not *congestus* they are so near it that it would be unwise to consider them as new and they must accordingly be placed temporarily at least under this species.

22. Tricentrus resectus Distant.

Add—Locality: Sandakan, Borneo.

Five specimens, one (Baker's duplicate No. 9404) from Singapore and four (two of which bear respectively Baker's duplicate Nos. 9394 and 9827) from Borneo. All of the specimens are females but the male has been previously recorded from Singapore.[3]

23. Tricentrus gibbosulus Walker.

Add—Locality: Sandakan, Borneo.

A series of twenty specimens collected as follows: two males from Singapore (one bearing Baker's duplicate No. 9405); four males and two females from the Island of Penang, two of the males bearing Baker's duplicate Nos. 9382 and 9383 respectively and two of the females 9385 and 9387 respectively; five males and seven females from Borneo, the males including Baker's duplicate Nos. 9517 and 9518 and the females Nos. 9318, 9516 and 9828.

The species has already been reported from Singapore and the Island of Penang at which localities they were collected by Professor Baker during the Summer of 1917.

The males of this species are somewhat smaller and darker than the females and both sexes show some variations in the length and position of the suprahumeral horns.

24. Tricentrus flavipes Melichar.

1914. *Tricentrus flavipes* Melichar, Notes Leid. Mus. p. **112.**

One female from the Island of Penang.

25. Tricentrus nigris sp. nov. (Figs. 5 and 6).

Entirely black except the apices of the tegmina which are ferruginous; coarsely and closely punctate, very sparingly pubescent; suprahumeral horns sharp, compressed dorso-ventrally, extending outward and upward, tips slightly curved backwards, about as long as the distance between their bases; posterior process carinate, sharp, extending beyond the abdomen but not reaching apices of tegmina; scutellum plainly exposed on each side; tegmina ferruginous-hyaline, black and punctate at base; hind trochanters strongly armed with teeth; legs and undersurface of body black.

---

[1] Walker, Francis. Insecta Saundersiana, p. 79, 1858.
[2] Distant, W. L. Fauna British India IV: p. 54, 1907.
[3] Journ. Straits Branch R. A. Soc., No. 79, p. 6, No. 13, 1918.

Head broader than long, subtriangular, black, the fine punctures almost entirely hidden by close, short, silvery pubescence; base of head sinuately convex; eyes larger, prominent, brown; ocelli not prominent, translucent blackish-brown, about equidistant from each other and from the eyes and situated somewhat above a line drawn through centres of eyes; inferior margins of genae straight; clypeus a little longer than wide, black, punctate, pubescent, extending for half its length below inferior margins of genae, tip rounded and pilose.

Pronotum black, coarsely punctate, sparingly pubescent; metopidium perpendicular, slightly convex above, weakly pubescent above the eyes and bearing an irregular callosity above the inner angle of each eye; median carina percurrent, weak over metopidium and sharply ridged over posterior process; dorsum weakly sinuate, lowest directly over scutellum and at tip of posterior process; humeral angles prominent, auriculate; suprahumeral horns strong, sharp, flattened dorso-ventrally, broad as seen from above, narrow as seen from in front, the posterior edge bicarinate, each horn about as long as the distance between the bases of the horns and extending outward and upward with the tip slightly recurved; scutellum broadly exposed on each side, black, punctate, sparsely pubescent, tip bidentate; posterior process long, heavy, sharp, punctate, not pubescent, strongly ridged on dorsal median line, weakly carinate just above lateral margins, tip acute, slightly decurved, extending beyond the abdomen and to a point about midway between the interior angle and the apex of the tegmen.

Tegmina ferruginous-hyaline, wrinkled, appearing darker in the central portion where the black abdomen shows through; base black coriaceous, punctate, sparingly pubescent; veins heavy, black in central area and ferruginous in apical area.

Undersurface of body black; sides of mesothorax and metathorax densely pubescent with yellowish hairs; abdomen entirely black.

Legs black or black-brown; tibiae minutely spined; tarsi brown or ferruginous; hind trochanters strongly armed with teeth.

Length 7 mm.; width between tips of suprahumeral horns 5 mm.

Type: male.

Locality: Sandakan, Borneo.

Type (Baker's duplicate No. 9514) and allotype (Baker's duplicate No. 9400) in author's collection. The female is about the same size as the male and shows no difference in color or markings.

26. **Tricentrus brevicornis** sp. nov. (Figs. 7 and 8).

Small, black; suprahumeral horns very small; posterior process heavy, short, extending just to interior angle of tegmen; tegmina dark brown with white spot at apical angle and with the base black, coriaceous and punctate; trochanters, femora and proximal ends of tibiae black; distal ends of tibiae ferruginous; tarsi and claws flavous.

Head wider than long, entirely black, finely punctate, sparsely pubescent; base sinuate; eyes large, prominent, brown; ocelli very conspicuous, shining, translucent, luteous, somewhat farther from each other than from the eyes and situated slightly above a line drawn through centres of eyes; inferior margins of genae sinuate; clypeus longer than wide, much reflexed, extending for about half its length below inferior margins of genae, black, punctate, tip slightly pilose.

Pronotum entirely black, coarsely punctate, very sparingly pubescent with weak short hairs; metopidium convex, broader than high, coarsely punctate; median carina strongly percurrent over both metopidium and posterior process; humeral angles large, prominent, extending laterad farther than the suprahumeral horns; suprahumeral horns very small and short, wider than high, flattened dorso-ventrally, hardly more conspicuous than a large carina would be and resembling more a fold than a horn, extending outward and upward but not reaching as far laterad as the humeral angles below them, about as far, in fact, as the lateral margins of the eyes and not extending much higher than the crest of the dorsum; scutellum plainly exposed on each side, black, punctate, sparingly pubescent; posterior process short, heavy, entirely black, coarsely punctate, not pubescent, strongly ridged above, tip slightly upraised and extending just to the internal angle of the tegmen.

Tegmina dark brown, wrinkled; base black, coriaceous and punctate; small area around internal angle white and subhyaline; veins prominent and black; five apical and two discoidal areas.

Undersurface of body entirely black; ventral segments of thorax finely punctate; sides of mesothorax and metathorax sparingly pubescent.

Legs black with the distal extremities of the tibiae ferruginous and the tarsi and claws luteous or flavous. Hind trochanters armed on the internal surface with strong teeth.

Length 4 mm.; width between extremities of suprahumeral horns 1.7 mm.; between tips of humeral angles 2.2 mm.

Type: male.

Locality: Sandakan, Borneo.

Unique type in Professor Baker's collection.

This species is most interesting in that it seems to show a transition form approaching the genus *Centrotoscelus*. The genus *Centrotoscelus* is separated from *Tricentrus* chiefly by the fact that in the former genus the suprahumeral horns are absent. The species of *Tricentrus* here described as *brevicornis* has the smallest and least conspicuous suprahumerals of any species of that genus hitherto reported.

27. **Sipylus dilatatus** Walker.

Add—Locality: Sandakan, Borneo.

Two males and one female from Borneo, the males bearing respectively Baker's duplicate Nos. 9401 and 9531.

This species is apparently widely distributed throughout the East Indies. Specimens in my collection from the Philippines have been compared by Mr. W. L. Distant with Walker's type in the British Museum and pronounced identical. The Borneo material agrees in every respect with the Philippine forms, as do also specimens previously collected by Professor Baker at Singapore. The species is easily recognized by the triangular pronotum, the absence of spines on the trochanters and the very nodulate veins of the tegmina.

28. **Centrotoscelus borneensis** sp. nov. (Figs. 9 and 10).

Pronotum rich ferruginous-brown, finely punctate, closely pubescent with silvery hairs; tegmina ferruginous-hyaline, base dark brown and punctate, tip brown; no suprahumeral horns; posterior process extending just beyond internal angles of tegmina; undersurface of body dark brown; legs ferruginous; hind trochanters armed on internal surface with strong teeth.

Head about as long as wide, dark brown, the fine punctuation almost entirely hidden by the dense silvery pubescence; base of head convex, very weakly sinuate; eyes large, prominent, light brown; ocelli large, prominent, glassy, about twice as far from each other as from the eyes and situated well above a line drawn through centres of eyes; inferior margins of genae weakly sinuate, reflexed, sloping downward from eyes to margins of clypeus; clypeus longer than wide, much deflexed, brown, punctate, pubescent, tip-rounded and flanged.

Pronotum uniform ferruginous-brown, finely punctate, pubescent with silvery hairs; metopidium broader than high, rich brown punctate, pubescent, slight callosity over inner angle of each eye, not carinate in centre; humeral angles large, prominent, blunt, dorsum convex over humeral angles, depressed over scutellum, straight on posterior process; median carina not percurrent, plainly indicated on posterior process but obsolete over anterior half of pronotum: scutellum exposed on each side, brown, punctate, sparingly pubescent: posterior process straight, heavy, blunt, carinate above, tip extending barely beyond internal angle of tegmen.

Tegmina ferruginous, subtranslucent, wrinkled, iridescent; base dark brown, coriaceous, punctate, pubescent; apical margin and about one-fourth of apical cells marked with brown, region of internal angle lighter in color than the rest of the tegmen; veins heavy, dark brown; five apical and two discoidal cells, the venation agreeing with that of the genus *Tricentrus*.

Undersurface of body very dark brown; sides of thorax finely punctate and closely pubescent; trochanters and femora dark brown, tibiae and tarsi ferruginous; hind trochanters strongly armed with teeth on internal surface.

Length 4.8 mm.: width between extremities of humeral angles 2.6 mm.

Type: female (Baker's duplicate No. 9520).

Locality: Sandakan, Borneo.

Type in author's collection; paratype in Professor Baker's collection.

29. **Centrotoscelus brevispinis** sp. nov. (Figs. 11 and 12).

Near the preceding but larger and differing in the shape and length of the posterior process and in the maculations of the tegmina.

Large and robust; head black; pronotum brown, punctate, pubescent: no suprahumeral horns: posterior process short, sharp, tricarinate, tip acute and extending just to the internal angles of the tegmina; tegmina smoky hyaline, base black, veins of central area black and upraised; undersurface of body dark brown; tibiae and tarsi ferruginous.

Head black, coarsely punctate, sparingly pubescent, wider than long, roughly sculptured; base sinuate: eyes large, prominent, dark brown; ocelli prominent, somewhat elevated, yellowish, somewhat farther from each other than from the eyes and situated slightly above a line drawn through centres of eyes; inferior margins of genae weakly sinuate, slightly protruding: clypeus black, punctate, pilose with yellowish hairs, longer than wide, extending for more than half its length below inferior margins of genae, tip truncate and densely pilose.

Pronotum dark ferruginous-brown except just above the head where the color is much darker, finely punctate, rather densely pubescent; metopidium sloping, a little wider than high, black on lower third and brown above, an irregular callosity above internal angle of each eye, no central carina; humeral angles large, prominent, triangular, blunt; dorsum convex above humeral angles, sloping before posterior process; scutellum largely exposed on both sides, very densely pubescent with yellowish or golden hairs; posterior process short, nearly straight, strongly tricarinate with a median ridge above and a lateral ridge on each side just above lateral margin, extreme tip very sharp, black, extending just to internal angle of tegmen.

Tegmina smoky-hyaline tinged with ferruginous; somewhat wrinkled, especially on the rather broad apical margin; base black, coriaceous, coarsely punctate, sparingly pubescent; costal margin of apex very narrowly and faintly marked with light brown; veins in central area of tegmina very heavy, upraised and black; a rather narrow transverse area just following coriaceous base lighter than other parts of tegmen; five apical and two discoidal cells.

Undersurface of body very dark brown, rather closely pubescent with silvery hairs; coxae, trochanters and femora dark brown; tibiae and tarsi ferruginous; tibiae minutely spined and pilose; hind trochanters strongly armed with teeth on the inner surface.

Length 5.7 mm.; width between extremities of humeral angles 2.8 mm.

Type: female.

Locality: Sandakan, Borneo.

Type (Baker's duplicate No. 9512) in author's collection; allotype and paratype in Professor Baker's collection.

One tegmen of the type specimen shows three discoidal cells instead of two, a variation not unusual in the tegmina of the subfamily Centrotinae and an evidence of the fact that the number of discoidal cells is not a reliable character for specific diagnosis.

30. **Centrotoscelus pseudocornis** sp. nov. (Figs. 13 and 14).

Small, black, with slight protuberances which resemble horns above the humeral angles; posterior process just reaching internal angles of tegmina; tegmina smoky-hyaline except base which is black and punctate; tibiae and tarsi ferruginous.

Head wider than long, black, roughly sculptured, densely pubescent with silvery hairs; base strongly sinuate; eyes large, prominent, brown; ocelli small, brown, glassy somewhat farther from each other than from the eyes and situated slightly above a line drawn through centres of eyes; inferior margins of genae sloping, weakly sinuate, flanged; antennae very fine but visible; clypeus about twice as long as wide, black, densely pubescent, projecting for half its length below inferior margins of genae, tip rounded and pilose.

Pronotum black, finely punctate, closely pubescent with silvery hairs; metopidium convex, broader than high, a black callosity over the internal angle of each eye, barely carinate on inferior half; humeral angles large, prominent, triangular, blunt; a strong ridge suggesting an undeveloped horn above each humeral angle; median carina strong on posterior half of pronotum, weak over humeral angles and almost obsolete on metopidium; scutellum plainly exposed on each side; posterior process short, heavy, tectiform, median dorsal ridge high, tip blunt and just reaching internal angles of tegmina.

Tegmina smoky-hyaline, tinged with ferruginous; smooth in central region but wrinkled in apical region; base black, coriaceous, finely punctate, sparingly pubescent; veins of central costal area heavy and brown; five apical and two discoidal cells.

Undersurface of body black, punctate and pubescent; sides of abdominal segments grayish with sharp black punctures; coxae, trochanters and basal half of femora black; distal half of femora lighter; tibiae and tarsi ferruginous; hind trochanters armed on inner surface with strong teeth.

Length 4.3 mm.; width between tips of humeral angles 2.3 mm.

Type: male (Baker's duplicate No. 9384).

Locality: Island of Penang.

Type in author's collection.

This species is most interesting in that it shows a tendency to a transition towards the genus *Tricentrus*. It very closely approaches *Tricentrus brevicornis* described above (No. 26) and might be placed in the same genus as the latter species if the suprahumeral ridges were somewhat more prominent. In general facies, however, *Centrotoscelus pseudocornis* has more affinities towards *Centrotoscelus* than towards *Tricentrus* and must be placed for the present in the former genus. It may be that additional forms from these two genera will show that the presence or absence of suprahumeral horns will not constitute a sufficient generic character as has hitherto been supposed.

One male from the Island of Penang.

32. **Gargara projecta** Funkhouser.

One male and two females from the Island of Penang. As in the type material from Singapore, the male is somewhat smaller and darker than the female but is easily identified by the projecting head and clypeus. One female bears Baker's duplicate No. 9393 and the male the duplicate No. 9396. The species has already been reported from the Island of Penang.[1]

33. **Gargara attenuata** Funkhouser.

1914. *Gargara attenuata* Funkh. Journ. N. Y. Ent. Soc. XXII: 3, p. 236, 4, Fig. 4.

Two females from the Island of Penang and one male and one female from Sandakan, Borneo. One female from the Island of Penang bears Baker's duplicate No. 9392. The male from Borneo is numbered 9832 and the female 9831. This species was described from Banguey; the specimens here recorded agree in all respects with the type material with which they have been compared.

---

[1] Journ Straits Branch R. A. Soc., No. 79, p. 11, 1918.

34. Gargara nitidipennis Funkhouser.

Add—Locality: Sandakan, Borneo.

One male. It has been remarked that this species seems to show remarkable variation in size without other characters which would warrant the dividing of the species. The Borneo specimen agrees very closely with the original type material from Los Banos with which it has been compared.

35. Gargara tuberculata Funkhouser.

1914. *Gargara tuberculata* Funkh. Journ. Ent. & Zoo. VI: 2, p. 70, No. 12, Fig. 6.

1914. *Gargara tuberculata* Funkh. Journ. N. Y. Ent. Soc. XXII: 3, p. 235.

1915. *Gargara tuberculata* Funkh. Review Phil. Memb. p. 398.

1918. *Gargara tuberculata* Funkh. Notes Phil. Memb. p. 32.

One male from the Island of Penang. Easily recognized by the tuberculate tegmina.

36. Gargara luconica Fairmaire.

1846. *Membracis luconica* Fairm. Rev. Memb. 255, 45.

1851. *Enchenopa luconica* Walk. List Hom. Brit. Mus. 484, 18.

1870. *Gargara luconica* Stal. Hem. Phil. 728, 1.

1915. *Gargara luconica* Funkh. Phil. Memb. p. 395.

1918. *Gargara luconica* Funkh. Notes Phil. Memb. p. 38.

A pair from the Island of Penang and a pair from Sandakan, Borneo. The male from the Island of Penang bears Baker's duplicate No. 9391 and the female 9390. The Borneo specimens are unnumbered.

37. Gargara pygmaea Walker.

1851. *Centrotus pygmaeus* Walk. List Hom. Brit. Mus. 630, 75.

1910. *Gargara pygmaea* Banks Phil. Journ. Sci. V: 48, 35.

1915. *Gargara pygmaea* Funkh. Phil. Memb. p. 396.

1918. *Gargara pygmaea* Funkh. Notes Phil. Memb. pp. 32, 38.

One male from the Island of Penang.

38. Gargara rubrogranulata Bierman.

Add—Localities: Island of Penang; Sandakan, Borneo.

One female from Singapore, two females from the Island of Penang and one female from Borneo. The species has already been reported from Singapore but the other localities are new.

39. Gargara rugonervosa Funkhouser.

1918. *Gargara rugonervosa* Funkh. Notes Phil. Memb. p. 34.

One female from Sandakan, Borneo.

40. Gargara piceola Melichar.

Add—Localities: Island of Penang; Sandakan, Borneo.

Four females from Borneo; one male and two females from the Island of Penang. The Borneo specimens bear Baker's duplicate Nos. 9397, 9529, 9834 and 9835. One of the females from Borneo is numbered 9389.

41. Gargara nigrofasciata Stal.

1870. *Gargara nigrofasciata* Stal Hem. Phil. 729, 5.

1914. *Gargara nigrofasciata* Funkh. Journ. Ent. & Zoo. VI: 2, p. 70, no. 10.

1914. *Gargara nigrofasciata* Funkh. Journ. N. Y. Ent. Soc. XXII: 3, p. 235.

1915. *Gargara nigrofasciata* Funkh. Phil. Memb. p. 398.

1917. *Gargara nigrofasciata* Funkh. Memb. Cay. Lake Bas. Pl. 30, Fig. 12.

1918. Funkh. Notes Phil. Memb. p. 32.

One male and three females from Sandakan, Borneo. The male bears Baker's duplicate No. 9525 and one of the females the No. 9523. The Borneo material shows no variation from a long series of specimens collected in various parts of the Philippine Islands by Professor Baker and by Mr. R. C. McGregor of Manila.

42. Gargara pulchripennis Stal.

1870. *Gargara pulchripennis* Stal Hem. Phil. 729, 4.

1914. *Gargara pulchripennis* Funkh. Journ. Ent. & Zoo. VI: 2, p. 70, No. 11.

1915. *Gargara pulchripennis* Funkh. Phil. Memb. p. 398.

1917. *Gargara pulchripennis* Funkh. Memb. Cay. Lake Bas. Pl. 32, Fig. 6.

1918. *Gargara pulchripennis* Funkh. Notes Phil. Memb. p. 32.

Three males and three females from Sandakan, Borneo. Two of the males bear respectively Baker's duplicate Nos. 9402 and 9530 and one of the females No. 9527.

As in the case of the preceding species, these specimens agree in all respects with Philippine material.

43. Gargara maculipennis Funkhouser.

1918. *Gargara maculipennis* Funkh. Notes Phil. Memb. p. 32.

Three females from Sandakan, Borneo, one bearing Baker's duplicate No. 9526. These specimens are considerably smaller than the types from the Philippines and differ slightly in markings. They may represent a new variety but I should hesitate to set them off as such without having a longer series available for study.

44. Gargara varicolor Stal.

1870. *Gargara varicolor* Stal Hem. Phil. 728, 3.

1914. *Gargara varicolor* Funkh. Journ. Ent. & Zoo. VI: 2, p. 69.

1915. *Gargara varicolor* Funkh. Phil. Memb. p. 397, Pl. 2, Fig. 18.

1918. *Gargara varicolor* Funkh. Notes Phil. Memb. pp. 32, 38.

One female from Sandakan, Borneo.

45. Gargara affinis Distant.

1907. *Gargara affinis* Dist. Fauna Brit. Ind. p. 61, no. 2192.

1914. *Gargara affinis* Funkh. Journ. N. Y. Ent. Soc. XXII: 3, p. 236.

A pair from Sandakan, Borneo, the male bearing Baker's duplicate No. 9833. I have what is apparently the same species from Banguey.

46. Gargara citrea Distant.

1907. *Gargara citrea* Distant Fauna Brit. Ind. p. 63, no. 2197.

1916. *Gargara citrea* Dist. Fauna Brit. Ind. App. p. 170.

Two females from Sandakan, Borneo, bearing respectively Baker's duplicate Nos. 9395 and 9522.

47. Gargara mixta Buckton.

1903. *Maerops mixtus* Buckt. Mon. Memb. p. 257, Pl. 69, Figs. 8, 8*a*.

1903. *Maerops mixtus* Buckt. idem. p. 266.
1903. *Gargara variegata* Melichar Hom. Ceylon, p. 123.
1907. *Gargara mixta* Dist. Fauna Brit. Ind. p. 65.
1907. *Gargara mixta* Lefroy Ind. Ins. Life, p. 732.
1916. *Gargara mixta* Dist. Fauna Brit. Ind. App. p. 171.

Two males and one female from Sandakan, Borneo. One of the males bears Baker's duplicate No. 9829 and the female is numbered 9830.

If the above synonymy is correct as I believe it to be since Distant has compared Buckton's type of *M. mixtus* with a cotype of Melichar's *G. variegata,* this insect has a very wide range and it is not surprising that it should be here recorded from Borneo.

From the material which I have seen belonging to this species I judge that it shows considerable variation or that perhaps there are several varieties. I have never recognized Distant's variety *nandidrugana* which he states may be a distinct species.

48. **Gargara pilinervosa** sp. nov.

Small, dark brown, finely punctate, densely pubescent; posterior process not reaching internal angles of tegmina; tegmina hyaline, base black, transverse brown fascia across central area, veins very strongly pilose and somewhat nodulate; undersurface of body brown; femora brown, tibiae and tarsi luteous.

Head wider than long, the black color and fine punctuation almost entirely hidden by the very dense silvery pubescence; base strongly sinuate; eyes large, prominent, grayish-brown; ocelli small, pearly, at least twice as far from each other as from the eyes and situated well above a line drawn through centres of eyes; inferior margins of genae sloping, sinuate; antennae long, prominent; clypeus longer than wide, black, punctate, very densely pubescent, extending for about half its length below inferior margins of genae, tip rounded, flanged and sparingly pilose.

Pronotum dark brown, punctate, very densely pubescent with silvery hairs especially over anterior half; metopidium wider than high, sloping, slightly convex along median line; humeral angles large, prominent, triangular, auriculate, blunt; median carina faintly percurrent, strong on posterior process but almost obsolete on metopidium; dorsum weakly convex, slightly depressed above scutellum; scutellum plainly exposed on both sides, punctate, pubescent; posterior process short, heavy, blunt, strongly ridged above, somewhat lighter in color than the rest of the pronotum, extending only a short distance beyond scutellum and not nearly reaching the internal angles of the tegmina.

Tegmina hyaline except at base which is black, coriaceous, punctate and pubescent; across the central area is a transverse brown fascia extending from the internal angle and becoming gradually wider until it reaches the costal margin; veins very strongly pilose throughout and slightly nodulate near base; five apical and two discoidal cells.

Undersurface of body dark brown or black. Coxae, trochanters and proximal ends of femora black; distal ends of femora ferruginous; tibiae and tarsi yellow.

Length 3.6 mm.; width between tips of humeral angles 1.7 mm.

Type: female.

Locality: Sandakan, Borneo.

Unique type in Professor Baker's collection.

49. **Gargara nigra** sp. nov.

Entirely black except eyes and tarsi which are yellow-brown; posterior process straight, tip slightly decurved and extending just beyond internal angles of tegmina; tegmina entirely black, opaque; undersurface of body black.

Head wider than long, black, finely punctate, rather strongly pubescent with very short silvery hairs; base sinuate; eyes very large, prominent, shining, yellow-brown with brown spots; ocelli small, whitish-yellow, glistening, twice as far from each other as from the eyes and situated well above a line drawn through centres of eyes; inferior margins of genae sloping, sinuate; antennae very fine, not prominent; clypeus about as long as wide, black, punctate, pubescent, extending for about one-third its length below inferior margins of genae, tip rounded, slightly flanged.

Pronotum entirely black, finely punctate, sparingly pubescent with very short silvery hairs; metopidium wider than high, sloping, no central carina, an irregular callosity above internal angle of each eye; humeral angles large, prominent, triangular, blunt; median dorsal carina not percurrent, distinct on posterior process, only slightly visible above humeral angles and entirely obsolete on metopidium; dorsum nearly straight, only slightly convex above metopidium; scutellum plainly visible on each side, black, punctate; posterior process slender, straight, entirely black, finely punctate, sparsely pubescent, tip slightly deflexed and extending a little beyond internal angles of tegmina but not nearly reaching tip of abdomen.

Tegmina entirely black, opaque; base slightly punctate, coriaceous; veins black, prominent, inclined to be finely nodulate; five apical and two discoidal cells.

Undersurface of body entirely black, punctate, sparingly pubescent. Legs entirely black except the extreme tips of the tibiae and the tarsi which are yellow-brown.

Length 3.9 mm.; width between tips of humeral angles 2 mm.

Type: female.
Locality: Sandakan, Borneo.
Type (Baker's duplicate No. 9524) in author's collection.

In the type specimen the outer discoidal cell on one tegmen is subdivided but the other tegmen is normal.

50. **Parayasa maculipennis** sp. nov. (Fig. 15).

Shining black; tegmina with three long and one very short white fasciae and four large apical cells; posterior process strongly sinuate and not nearly reaching to internal angles of tegmina; ocelli very much farther from each other than from the eyes; undersurface of body black; legs dark brown.

Head very convex, about as long as broad, black, shining, punctate, very sparingly pubescent at lateral basal angles; eyes large, prominent, yellowish-white with brown markings near inner margins; ocelli small but very prominent, yellowish, glassy, glistening, very much farther from each other than from the eyes and situated near the lateral margins of the head somewhat above a line drawn through centres of eyes; inferior margins of genae short and nearly straight; clypeus much deflexed, convex, black, shining, finely punctate, extending for two-thirds its length below the inferior margins of the genae, tip rounded, somewhat swollen, sparingly pubescent.

Pronotum entirely black, finely punctate, shining, very faintly pubescent; metopidium sloping, broader than high, slightly depressed above eyes, black, shining, finely punctate; humeral angles very broad, prominent, auriculate, blunt; dorsum strongly sinuate, a depression just behind humeral angles and another in centre of posterior process, between these depressions much swollen; median dorsal carina very faintly percurrent; posterior process short, heavy, blunt, a swollen elevation at base and at tip, faintly carinate along median dorsal line, tip rounded and not nearly reaching internal angles of tegmina; scutellum not exposed when tegmina are closed.

Tegmina black, opaque, shining; base coriaceous and punctate; veins noticeably pilose; four shining white linear fasciae extending across the tegmen at various angles as follows: one very short white line extending from centre of margin of posterior process across the clavus caudo-ventrad to the fold of the corium; another white line extending entirely across the tegmen diagonally from the tip of the posterior process cephalo-ventrad to the costal margin near the edge of the basal punctuation; another wider white line beginning on the costal margin about two-thirds of the distance from the base and extending cephalo-dorsad about half-way across the tegmen; another broad white fascia extending across the tip of the tegmen just inside the apical veins. The tegmen has four large apical cells and two discoidal.

Undersurface of body entirely black; sides of metathorax thickly white tomentose; legs uniformly dark brown.

Length 3.4 mm.; width between tips of humeral angles 1.7 mm.

Type: female.

Locality: Sandakan, Borneo.

Unique type in Professor Baker's collection.

In erecting the genus *Parayasa*, Distant gives as one of the generic characters the position of the ocelli as about equidistant from each other and from the eyes. This is certainly not the case in the species here described, although I believe it unquestionably belongs to the genus as designated. I think, also, that the fact that the scutellum is not exposed in the insects of this genus should be stated as an aid to identification.

EXPLANATION OF PLATE.

Fig. 1. Lateral outline of *Centrotypus brunneus* sp. nov.
2. Frontal outline of *Centrotypus brunneus* sp. nov.
3. Lateral view of *Anchonoides serpentinus* sp. nov.
4. Front view of head and pronotum of *Anchonoides serpentinus* sp. nov.
5. Lateral outline of *Tricentrus nigris* sp. nov.
6. Frontal outline of *Tricentrus nigris* sp. nov.
7. Lateral outline of *Tricentrus brevicornis* sp. nov.
8. Frontal outline of *Tricentrus brevicornis* sp. nov.
9. Lateral outline of *Centrotoscelus borneensis* sp. nov.
10. Frontal outline of *Centrotoscelus borneensis* sp. nov.
11. Lateral view of *Centrotoscelus brevispinis* sp. nov.
12. Frontal view of head and pronotum of *Centrotoscelus brevispinis* sp. nov.
13. Lateral outline of *Centrotoscelus pseudocornis* sp. nov.
14. Frontal outline of *Centrotoscelus pseudocornis* sp. nov.
15. Lateral view of *Parayasa maculipennis* sp. nov.

⁂

Corrigenda Journal 81.

p. 3, last line but one for *—and—* read *66 and 59.*

p. 4, last line but one for *gets* read *get.*

p. 49, third line of footnote for *Zcilanjbus,* Thw. read *zeylanicus,* Trim.

fourth do. supply — after the word King.
sixth do. for *and Dyer,* read *Dyer, and*
last do. should run on to the 8th line.

pp. 53 and 54, figures 28-30 and 19-21 are transposed.

p. 53, in the description of figures 16-21, for *19-21* read *16-18,* and for *16-18* read *19-21.*

p. 55, in the description of figures 34-37 for *nat.* ⅓ *size* read ⅓ *nat. size.*

p. 57, in the description of figures 40-44 for *vertica* read *vertical;* for *plal* read *pla-;* for *embrio* read *embryo,* and in the last line but one for *placenta* read *placentar.*

p. 58, figure 46 is upside down.

p. 60, in the description of figures 66-68, the numbers 67 and 68 are transposed.

p. 61, in the description of figures 69-71 for *cotyldon* read *cotyledon.*

p. 71, in the description of figure 155 for *sentilata* read *scutulata.*

p. 75, line 8 from the bottom for *204* read *206.*

„ 7 „ for *205* read *207* and for *206* read *208.*

p. 76, in the descriptions of figures 209-212 for *Fgure* read *Figure,* and for *beon* read *been.* Also add, *Figure 213, a seedling.*

LIST OF MALAY WORKS SOLD BY THE STRAITS BRANCH ROYAL ASIATIC SOCIETY.

Price $2.50 each.

Ht. Sri Rama (*Chĕrita Pĕnglipor Lara*) *Jawi*	Journal	17, 1887.
„ „ „ Rumi	„	55, 1910.
Ht. Raja Donan (Jawi)	„	18, 1887.
Ht. Raja Ambong (Jawi)	„	19, 1887.
Shaer Raja Haji (Rumi)	„	22, 1890.
Ht. Shamsu'l-Bahrain (Jawi)	„	47, 1906.
Ht. Awang Sulong sĕrta Ht. Musang Bĕrjanggut (Rumi)	„	52, 1909.
Ht. Saif al-Yezan (*Saif dzu'l-Yazan*) (Rumi)	„	58, 1911.
Ht. Raja-Raja Pasai (Rumi)	„	66, 1914.
Shaer Burong Punggok sĕrta pĕrumpamaan Mĕlayu (Rumi)	„	67, 1914.
Ht. Marong Mahawangsa (*Sĕjarah Kĕdah*) *sĕrta Sĕjarah Trengganu dan Kĕlantan* (Rumi)	„	72, 1916.
Ht. Sĕri Rama, tĕrsalin daripada naskhah tulisan lĕbeh 300 tahun lama-nya (Jawi)	„	71, 1915.

Ht. Raja Budiman (Jawi)—separate publication.

SMITHSONIAN INSTITUTION LIBRARIES
3 9088 01309 9817